PHILADELPHIA MEDICAL TIMES.

PHILADELPHIA, MAY 16, 1885.

ORIGINAL COMMUNICATIONS.

ABSTRACT OF A PAPER ON THREE CASES OF IDIOPATHIC ANÆMIA, WITH REMARKS; AND AN ANALYSIS OF THE CASES HITHERTO PUBLISHED IN AMERICA.

Read before the Philadelphia County Medical Society

BY J. H. MUSSER, M.D.,

Chief of the Medical Dispensary, Hospital University of Pennsylvania, Pathologist to Presbyterian Hospital, etc.

THE object of the writer of this paper was to place on record three new cases of idiopathic anæmia, and to gather up the cases previously published in America, for analysis and ready reference. The first case recorded was a female, married, æt. 42, who died from an anæmia which developed without organic cause, the inception of which was probably influenced by shock. The usual symptoms of profound anæmia were present, with the special characteristics of retinal hemorrhages, irregular fever, maintenance of adipose tissue, and the usual change in the blood. The red cells were reduced to 715,000 per c.mm. Cerebral symptoms were marked the last week of the illness. Duration, about three years. The autopsy did not reveal any organic disease to account for the anæmia. The bone-marrow was healthy, and the sympathetic ganglia, on microscopical examination, were found normal. A special feature of the case was the chemical examination of the blood. (See remarks.)

The second case was a man, æt. 41, who had been exposed to severe weather as a lumberman, and had had considerable mental anxiety. Clinically, it was at first difficult to distinguish the case from cancer of the stomach. The anæmic symptoms were marked; the red cells reduced to 2,210,000. The patient improved; suffered a relapse the succeeding spring, the red cells falling to 1,000,000 per c.mm., to recover permanently. No enlargement of lymphatics, liver, or spleen was discovered.

The third case was also a male, æt. 44, who improved, after a relapse, under treatment. No cytogenic organs appeared to be diseased. The anæmia developed without assignable cause. Intemperance might have been causal. Three counts of the blood showed a reduction of red cells, as follows: first count, 570,000 red cells per c.mm.; second, 660,000; third, 1,600,000 per c.mm. Some cells were larger than normal; microcytes were abundant; irregularly-shaped cells were the rule.

In his remarks Dr. Musser alluded to some special features of the cases:

1. Etiology. Influence of shock; age of the three patients (over forty); sex, two males and one female; absence of deprivation of food in all the cases.

2. Appearance of blood. Reduction in number and change in size and shape were marked; nucleated red corpuscles were not observed. The extreme reduction and very gradual increase in the Case No. III. were remarked upon.

3. Urine. A comparative table of the analysis of the urine in secondary anæmia, idiopathic anæmia, and chlorosis was presented. The percentage of urea was below normal in all the cases, and much less in the cases of secondary anæmia and chlorosis. Phosphoric acid and the chloride of sodium were reduced in amount in idiopathic anæmia. Uric acid was increased in one case, diminished in another.

4. The absence of pathological change in the sympathetic system of nerves, confirming the observations of Pye-Smith, Wilks, *et al.*

5. The absence of abnormal change in the bone-marrow.

6. The presence of black specks or possibly pigment-granules in the blood-clots, which were very soft.

7. The chemical examination of the blood. This is believed to be recorded for the first time. It was made by Dr. Marshall, of the University. The most striking feature was the reduction in the percentage of the iron: from 54 parts in 1000 (normal) to 18 parts. Albumen was lessened eleven parts in the thousand. The extractives and fats were increased, a possible source of light in studying the pathology of anæmia.

8. Course and termination. The relapse in one instance, with relief by removal from home, was noted; improvement decided in one case.

The second part of Dr. Musser's paper consisted of a *résumé* of the work of ob-

servers in America on idiopathic anæmia. He calls attention to the early observations of Channing (1842), and reviews the work of Howard, Pepper, Dale, Henry, and others.

Two tables were presented: one containing thirty cases of idiopathic anæmia in which the bone-marrow was normal or not examined; the other containing nine cases with marrow-lesion. A critical analysis of symptoms and pathological appearances was not attempted. The age, sex, occupation, habits, and exciting causes were reviewed. The writer pointed out the peculiarity that but one female of nine should have had marrow-change, and that all the affected males were over forty. Combining the tables, it is seen that the males exceeded the females (twenty-four to fifteen). Müller, Eichhorst, and Pye-Smith found the females to exceed the males in their analyses of cases. Regarding age, it was seen that the disease occurred in females earlier in life than in males, and that the disease was most frequent from the twentieth to the fiftieth year.

No sufficient cause was found in the study of the tables to warrant our regarding it as the source of the disease. Excessive physical labor and mental strain respectively were present in some cases. Nine of the males followed laborious occupations, while not a few were business men or clerks. Pregnancy was coincident in four cases only. Five of the patients were intemperate, four temperate. Privation had no influence; no instance was recorded. In fact, many of the cases were people of wealth. The family history did not reveal anything bearing on the etiology. The writer's case and cases of Curtin, Pepper, and Osler were probably due to nervous shock. Diarrhœa was the only disease found that might be causal; it was recorded in three instances, in all of which marrow-lesions were found.

The writer pointed out the locality of the disease, or at least that in which it was observed. It was found that fifteen of the cases were observed in Philadelphia, thirteen in Canada, and eight in Boston. He believed it due to special attention paid to blood-examinations in the respective places; it calculating to make the profession alive to the presence of this rare disease.

PARALDEHYDE AS A SLEEP-PRODUCER IN THE TREATMENT OF THE INSANE.

BY H. C. HARRIS, M.D.,

Assistant Physician State Hospital for the Insane at Norristown, Pa.

AS the production of sleep is often a chief factor in the treatment of the insane, I am prompted to offer the result in one hundred and fifty-two cases of mental disease in which sleep was induced by a recent hypnotic which is now attracting much attention. When paraldehyde is given to man in moderate dose (fifty minims), the most marked result, in the majority of instances, is a quiet sleep of from two to seven hours, which is induced in ten to forty-five minutes after its absorption.

Its advantages over chloral in our experience are mainly that there is no danger from its action on the heart; in fact, one hundred minims have been given to cases of acute mania without the slightest noticeable effect upon the heart or respirations, the repose simulating closely natural sleep, the subject being easily aroused but soon dropping off again when let alone. No convulsive effect or dreamy stimulation of the mind has been observed, its first effect being apparently upon the cerebral hemispheres. Never have we seen the awakening accompanied by any unpleasant symptoms; in fact, there is no objection on this score save the disagreeable odor of the breath, which is perceptible for from twelve to seventeen hours after the exhibition of the drug.

In cases of melancholia paraldehyde has acted commendably; even in patients who would sit for hours deploring their unhappy lot, and whose brains were filled with fears of an overwhelming calamity, a dose of sixty minims of the drug has calmed them into a quiet and apparently dreamless, refreshing sleep. In several instances, however, we found it necessary to increase the dose to seventy-five minims, but this amount uniformly brought on a most gratifying rest.

In those cases where paraldehyde is required to be given for a length of time, a certain tolerance would be expected, but the observations lead us to believe that the tolerance of paraldehyde does not manifest itself sooner than other hypnotics, and whether the increased dose was needful on account of a slight aggravation of the dis-

ease, or a tolerance of the drug, as yet we are unable to say: in all probability both have taken a part.

As an anodyne (in a limited number of trials) the remedy has failed either to relieve pain or produce sleep, although seventy-five minims of the drug have been taken; in no case, however, was nausea excited.

The following table will show the types of insanity that embrace the 152 cases to whom 1518 doses of the drug were given:

Mania, acute, 38; chronic, 9; periodic, 5; epileptic, 2; general paresis, 16; dementia, acute, 1; terminal, 11; organic, 19; senile, 4; epileptic, 2; melancholia, acute, 28; chronic, 11; hypochondriasis, 1; imbecility, 3; opium-mania, 1; dipsomania, 1.

Our results having been so uniformly satisfactory, we consider that paraldehyde is a valuable addition to our list of hypnotics; and where a sleep-producer must be given for a length of time, we consider it a most efficient, safe, and reliable remedy, the *sleep produced being in proportion to the size of the dose administered.*

NOTES OF HOSPITAL PRACTICE.

NEW YORK HOSPITAL.

SERVICE OF L. D. BULKLEY, M.D.

PALMAR SYPHILIDE.

GENTLEMEN,—I show you this case to-day that you may know how difficult it is sometimes to make a diagnosis.

The patient, aged 38 years, is a bill-poster by occupation. He has an eruption on the palmar surface of the hand, which is of a dry and hard character, marked by fissures, so that it causes great pain in opening his hand. The first question I will ask him is if the disease is common to his trade. He says that there are about one hundred bill-posters in the city; that he knows them all, and that none are similarly affected. We therefore exclude the occupation. You know that we have in washerwomen a condition known as washerwoman's itch, in bakers, baker's itch, and in bricklayers, bricklayer's itch, and so on. About three years ago he noticed the eruption when he arrived in London, having sailed from New York as a steerage passenger, so that all local causes can be excluded. The eruption first made its appearance between the fingers. He had had boils previous to this, which, however, had disappeared. When the disease made its appearance first it was in the form of cracks and fissures, and not as lumps. As one crack healed up another one formed. The eruption had a crescentic border, and healed in the centre, spreading towards the circumference. The disease extended in the same manner on the wrist by a distinct red margin, and consisted of a dry, hard mass. The other palm is healthy.

Last week I told you that there were three diseases of the palm,—eczema, psoriasis, and syphilis. We also may have tylosis, but this disease is seldom found on the hands. I also told you that psoriasis confined solely to the hands was very uncommon, and I doubted its existence. There are some points of resemblance to an ordinary psoriasis. I here show you some plates by Wilson, but I question very much the diagnosis. In this case it is comparatively easy to exclude psoriasis, because the eruption is not found on the other palm (psoriasis being a symmetrical disease), nor does it exist on any other portion of the body.

We can now narrow the diagnosis down to eczema or syphilis. We must recognize the fact that both diseases may exist in the same person at the same time. Thus we may have a syphilitic ulcer of the leg and an eczema of the hand existing in the same patient. In favor of the case being one of eczema, we have thickening and redness of the diseased patch on the hand. We also have a patch of eruption existing on the forearm. In favor of its being syphilis we find a well-defined margin to the eruption, and the fact of its starting from small points, healing up in the centre at various points, and spreading peripherally. He says that the disease has never been worse than it is now; sometimes it is very nearly well; still, the hand has not been free from fissures and cracks for a longer period than a week during the past three years.

He has been to several physicians, none of whom have apparently succeeded in curing him. Success in treatment will depend, in a great measure, on a correct diagnosis; if the case be one of syphilis pure and simple, it will be well before long; if eczema, it will be more difficult

to cure; and if both diseases are combined, it will be much easier to treat.

The great duration and obstinacy of the disease, and the papulo-tubercular condition of the lesion, would be in favor of syphilis; but I hold that the condition seen is due to a certain extent to the coexistence of an eczema. In eczema pure and simple we do not, as a rule, have a margin so sharply defined and healing in the centre. The rule is that eczema heals at the edges first, while syphilis takes on healthy action in the centre of a diseased patch and spreads at the edges. In this case the disease is again travelling over the healed surfaces. About the features of eczema, we do not have just this kind of palm presenting itself, we do not get so many scattered, isolated healthy spots, nor would the sweat-glands be normal in the centre, as in this case, although there is an eczematous element present here, as shown by a patch of eczema existing on the forearm.

A peculiar feature of the late syphilide is the tendency to attack but one side of the body, whereas in early syphilis (first, second, or third years) both palms would be affected.

We have not yet asked the patient if he has had chancre, for even if he acknowledged this it would not be sufficient to prove that the present lesion is the result of syphilis; he may have barber's itch or any skin-lesion existing at the same time.

He says that he had a chancre in 1870; it felt hard, but did not ulcerate or discharge pus to any extent. There was no bubo present. As soon as the chancre healed, his throat became sore. He now has a sore, presenting the appearance of a mucous patch, on the right side of the throat at the junction of the upper and lower jaws. There are mucous patches also on the under surface of the tongue. He does not smoke nor chew. The reason I ask this question is because we may get pearly patches on the tongue of those who use tobacco, and not have syphilis. He has never had rheumatism. His hair fell out to a slight extent. He had a dark-colored eruption, five or six years ago, confined chiefly to the chest. This rubbed off, or was washed off, and probably was tinea versicolor. Because the man had an eruption it does not necessarily follow that it was syphilitic in its origin. Still, this need not militate against the eruption on the palm being syphilitic. Another argument in favor of its being syphilitic is that there has been no local cause of irritation, its persistence under treatment, the tubercular character of the lesion, the loss of elasticity of the parts, and the existence of cracks.

This, then, is a case of syphilis of the palm in which eczema has been superadded. If we regard it simply as syphilis and carry the treatment to a certain point, without curing it, and then doubt the diagnosis and treat it as a case of eczema, the disease will become worse. The question has been asked me if the same rule as to diagnosis applies to the soles of the feet as to the palms of the hands. It does, except as to tylosis, which we often find existing there when the patient is otherwise in perfect health.

I will put the patient on syphilitic treatment, and by that I mean the mixed treatment of bichloride of mercury and iodide of potassium. At the end of a certain time the treatment will be interrupted for one week each month, after that two weeks, and then every other month until he has been under treatment for at least two years, including the intermissions. During these intervals treatment directed towards the eczema may be given, such as acetate of potassium, Fowler's solution, etc., and we should continue these medicines although the eczema may have disappeared. The local treatment may consist of anything which keeps the skin soft. This would also be the treatment in psoriasis or syphilis. Every time he washes his hands I would have him apply Squire's solution of the glycerole of the subacetate of lead, diluted with five or six times as much glycerin. I even have patients wash their hands frequently for the purpose of applying the wash. At night the local treatment should be specific, and some preparation of mercury may be used, as a five or ten per cent. solution of the oleate, and if there is much pain, morphine may be added. The hands should be covered with rubber gloves. The ordinary blue ointment, diluted two or three times, may be used. Sulphur has been recommended, but it should not be employed until after the subsidence of the inflammation.

ACNE INDURATA.

The patient, 18 years old, presents a good type of the various forms of acne.

The hard, indurated, and inflamed masses seen are called acne indurata; the scarring seen on the skin is due to the marks of the acne. You will see that he has a thick, doughy, and greasy skin. You can see here the different forms of the disease, acne simplex being the small points of eruption; the punctata form, or comedones, are the black spots, and the red inflamed masses acne indurata. If the skin were a little more greasy we would have the form called acne oleosa. The bowels are regular, digestion poor, as evinced by restlessness at night. I believe that there is more or less disorder of the chylopoietic viscera (not necessarily amounting to disease), and that the oxalates would be found to be increased in the urine.

All these indurated masses should be opened by means of a lancet; the point of the lance should be guarded with an arm, so that we may not go too deep in puncturing the pustules and tubercles. In puncturing these masses they will bleed very freely at first, but it will soon stop, and the inflammation will subside in a very short time. There is another form of local treatment applicable in this case for the removal of the comedones. This is done by means of a metallic tube, about one-eighth of an inch in diameter at one end and one-thirty-second of an inch at the other extremity, which should be round, so that it will cut the surface of the skin. As this instrument is pressed down over the mouth of the sac, sebaceous matter enters the tube in the shape of a worm, but of course it is not a worm. These points of eruption will return, but by emptying them they are relieved of congestion and are enabled to take on healthy action. Then there is another instrument called the dermal curette used in acne simplex, by means of which the tops of the pustules are removed, relieving the congestion without injuring the healthy tissue. There will be slight bleeding and inflammation from this operation, but it will soon pass away. As a local stimulant, the following is of service:

℞ Potass. sulphuret.,
Zinc. sulphat., āā ʒi;
Aq. rosæ, fʒiv.

Mix the sulphuret of potassium with one-half the quantity of rose-water, and the same with the sulphate of zinc, mixing them together afterwards. The powder should be allowed to remain, as that is the only valuable thing in it.

Internally acetate of potassium or strong nitric acid, together with exercise and a well-regulated diet, are of service.

TRANSLATIONS.

LEPRA-BACILLI.—Dr. Paul Guttman, in a paper read before the Berlin Medical Society (*Berliner Klin. Woch.*, No. 6, 1885), presented the report of a case of leprosy occurring in a girl 12½ years of age, in which were found in the tumors and in the blood abundant bacilli, which the author considered as the efficient cause of the disease. The detection of these bacilli in the new growth is said to be very easy; the specimens do not even need staining; they attain a length of one-fourth to one-half, and occasionally three-fourths, of the diameter of a red blood-corpuscle, and most of them contain spores. The curious fact was observed that the leprosy-bacilli possess the power of spontaneous motion, like the putrefactive bacteria of urine, after taking a section from the surface of the body, and may continue for an hour. This is checked by various staining solutions. The behavior to staining media, as pointed out by Koch, is identical with the tubercle-bacillus, which it also closely resembles in the dry specimens under the microscope, although it may be distinguished from the latter by the fact that it is always accompanied by cells from the affected area, and these cells contain bacilli; this could not occur in dry preparations from phthisical sputum, in which the bacilli are always free; in sections from tuberculous tissues, however, the tubercle-bacilli are also seen in the interior of cells, especially in giant-cells.

As regards the character of the disease and location, the new growth has its seat in the corium, and it is made up of more or less rounded or oval cells, differing greatly in size; many are only the size of a white blood-corpuscle, but some are three or four times this size. These cells are crowded together with very little connective, which is structureless, or here and there shows a tendency to become striped. Not only in the corium are these cells to be found, but they extend into the neigh-

boring subcutaneous tissues, and in the blood taken from remote portions of the body. The bacillary infiltration begins in the upper layer of the derma, the rete Malpighii remaining almost entirely free, and as a rule the sweat-glands also escape; the hair-bulbs and the epidermis are always free. The author concludes by expressing his belief that these bacilli are the efficient cause of the disease, for in all cases in which the dermal tumors and the leprous products of internal organs have been carefully examined this form of bacilli was detected, and always in large numbers.

CHRONIC PNEUMONIA, PHTHISIS, AND MILIARY TUBERCULOSIS.—In an interesting article contributed to *Virchow's Archiv* (B. 98, H. 1), by Drs. Biedert and Sigel, the evidence is reviewed in favor of the view, already expressed by others, that ordinary pulmonary phthisis is not a primary mycotic process, but that it is dependent for its development upon a preliminary, non-specific, chronic inflammatory infiltration of the lung-tissue. It is this exudation which affords the possibility of colonization and propagation to the ubiquitous tubercle-bacillus, which is suspended in the inspired air, and is not capable of development in the normal lungs of healthy individuals; by this means the non-specific pulmonary affection becomes developed into the serious and eventful processes of characteristic tuberculous pulmonary phthisis. A critique upon this article appears in the *Berliner Klinisch. Wochenschrift* (No. 6), in which the methods of examination adopted by Drs. Biedert and Sigel are pronounced unsatisfactory, and the view of the dependence of miliary tubercle and caseous pneumonia upon the introduction of the tubercle-bacillus is strongly affirmed.

POISONING BY PHENIC ACID.—A prisoner, 32 years of age, drank an alcoholic solution of carbolic acid from a bottle which he thought contained brandy: the amount swallowed was about sixty grammes, equal to forty-eight grammes of phenic acid. As soon as he had swallowed the solution he gave a cry, ran a short distance, and fell comatose, with stertorous respiration and imperceptible pulse, and died in a state of collapse, without vomiting and without convulsions, in less than ten minutes after swallowing the poison. Cases of poisoning of this kind are infrequent, considering the constant use of carbolic acid, and such rapidly fatal accidents are remarkably rare.—*Le Progrès Médical.*

[A case has just been reported in the daily papers of suicide by swallowing carbolic acid, in a lady of high social position in Chicago, the act being caused by domestic trouble.—ED. P. M. T.]

TREATMENT OF HORDEOLUM.—Obadie and Darier believe that they have found a special micrococcus in the discharge from a stye,—thus accounting for the well-known tendency for that affection to return. In the treatment emollient compresses, poultices, or, what is better, cotton wadding dipped in a solution of corrosive sublimate (1-3000) or of boric acid (10 G.) dissolved in water (300 G.), preventing evaporation by a dry wadding or silk covering. The little abscess may require opening with a bistoury, and the eye should still be washed for some days with the boric acid to prevent relapses.

DANGER OF BLISTERING FOR PNEUMONIA.—Two cases are reported by a correspondent of the *Bulletin Général de Thérapeutique*, Dr. Dejean, in which a blister applied to the chest before the arrival of the physician was rapidly followed by congestion of both lungs, pulmonary œdema, and death in a few hours. Both patients, a man and a woman, were in the first stage of pneumonia. A strong protest is made against the abuse of blisters, and especially by the laity.

FOR CHRONIC BRONCHIAL CATARRH WITH EMPHYSEMA AND DILATATION.—

℞ Potassii iodidi,	2.	Gm.
Ammonii chlorid.,	50.	
Pulv. ipecacuanhæ co.,	2.	
Tr. eucalypti,	10.	
Elixir,	170.	M.

S. A dessertspoonful four to six times daily. This is also useful during paroxysms of asthma.—*Le Progrès Médical.*

PROF. FORDYCE BARKER, of New York, who in a few days sails for Europe, was tendered a reception by Dr. Benjamin Lee, of Philadelphia, on Thursday, 7th instant, in this city, at which a large number of representative medical men were present.

PHILADELPHIA
MEDICAL TIMES.

PHILADELPHIA, MAY 16, 1885.

EDITORIAL.

THE AMERICAN MEDICAL ASSOCIATION AND THE COMMITTEE ON THE INTERNATIONAL MEDICAL CONGRESS.

IT is a matter of record that the American Medical Association, at a large and representative meeting held in Washington last year, decided to extend an invitation on behalf of the medical profession of this country to the International Medical Congress to hold its next meeting in Washington in 1887, and a committee was appointed, which included the retiring president and his immediate successor, and other prominent members of the Association, to convey the invitation; in case this was accepted, the committee was endowed with full authority to make the necessary arrangements, to solicit funds, to add to its membership, and to perfect its organization as an Executive Committee.

With regard to the *personnel* of the committee no criticism has been offered, but the official acts of the Executive Committee have been called in question. This Commission, in selecting men to fill the various offices, it has been asserted have not used sufficient discretion, but have favored unduly some localities, and have unfortunately ignored the claims of many representative men in the profession in other parts of the country. This, however, was to be expected, as there were not enough positions to go around so as to give one to each; and possibly the committee may have made some errors of judgment, which also might have been expected. Under these circumstances the American Medical Association has just appointed an additional supplementary committee of thirty-eight to supervise and correct the work of the first, and to act in conjunction with it in making all the arrangements for the International Medical Congress.

We think that the American Medical Association, owing to circumstances alluded to in our last issue, has by this action stultified itself, and has betrayed an inherent weakness in its present plan of organization.

The meeting at New Orleans was competent to take the work out of the hands of the original committee, according to law and usage, only by discharging the committee from further consideration of the same; it was not competent to appoint a committee to perform work which had already been placed in the hands of another one. It is probable, therefore, at the next meeting of the Association, that the Chair will rule upon this point that its action was illegal and void.

Furthermore, there has been organized, with the full sanction of the American Medical Association, an Executive Committee to make arrangements for the next meeting of the International Medical Congress. Having given its endorsement to the committee and authorized it, as far as lay in its power, to act for the profession of the United States, the American Medical Association has done all that it could or should do. It certainly has no supervisory power over the labors of the Executive Committee of the Congress, which is an entirely independent organization. The committee appointed to extend the official invitation to the Congress and to organize an Executive Committee reported both duties successfully accomplished. The Association should have accepted the report and discharged the committee. It is very much to be regretted that other counsels prevailed, and, owing to injudicious advice, another course was taken.

We do not anticipate that the Executive Committee will be at all hampered

in its arduous labors of preparing for what promises to be the greatest medical convocation ever held in this country. Nor do we believe that the success of the Congress or the future of the Association is seriously imperilled by the unfortunate incident of the meeting at New Orleans. But we regret sincerely that the Association, in voting upon such an important question as this, did not call for the ayes and nays, or take some other means of ascertaining how many of those voting were delegates and entitled to vote. As pointed out in our New Orleans correspondence, the voting was carried on in such an irregular and loose manner that it was impossible to decide whether the resolution received a majority of the legal votes cast or not. It would prevent much confusion if during business meetings only those entitled to vote should be admitted to the floor. We respectfully commend this to the attention of the Committee on Arrangements for the meeting next year at St. Louis.

VIRCHOW AND HIS ARCHIV.

IT is not too much to say that no publication has had such an influence in the promotion of modern medicine as the *Archiv für pathologische Anatomie und Physiologie und für klinische Medicin.* Were all other journals and books of the century to perish, we could gather from its pages the history of most of the important discoveries which have marked the progress of scientific medicine. The occasion of the publication of the one hundredth volume is taken by the editor to review briefly the history of the undertaking. And what a retrospect is his! Eight-and-thirty years have passed since the young and almost unknown Prosector at the Charité sought to establish a journal suitable as a medium for the pathological and clinical contributions of the more advanced workers in North Germany. The difficulties were great, but with the co-operation of his friend Reinhardt and the substantial encouragement afforded by the publisher Reimer, the trials of the first few years were successfully overcome. We can well understand that those of the profession in authority looked askance at the ardent young pathologist whose efforts as a reformer were directed to abuses of all sorts, and whose other journal, *Medicinische Reform,* was an organ of the most advanced radicalism and full of stinging articles against the government. But with the issue of each number, friends and contributors increased and the *Archiv* gradually grew in size and reputation.

At first only one volume a year—not always that—was published; but in 1856 the amount of manuscript justified the printing of three volumes, and from 1864 the journal became a monthly one, with three volumes a year, and in 1879 the numbers were enlarged so that four volumes a year were issued, at which number the editor hopes it will remain. The retrospect is in many ways a painful one, for Virchow is reminded of those who had worked with him and who are now no more: Förster, Friedrich, Weber, Bühl, Hüter, Cohnheim, and others,—many of them his pupils and intimate friends.

To no man is it given to see the fulfilment of all his hopes, and to but few is it given to realize so fully their early expectations as Virchow has done. In Nos. 3 and 4 of *Medicinische Reform* Virchow mourned the non-existence of a Berlin school of medicine, and throughout his early writings there can be traced an earnest desire for the development of the profession of that city. In his own life and work we can see the fulfilment of these youthful hopes, for the reputation of the Berlin school centres in him and his scholars.

With his early political aspirations we have naught to do. The fulfilment has not come in the way he wished; but since the affair of March, 1848, he has fought incessantly another battle of reform, feel-

ing that the questions of daily bread and a healthy existence come first in the life of a people, and his efforts in this direction, as in so many others, have been crowned with success. With eyes undimmed and vigor unabated he continues to labor, and that he may long be spared to do so is the earnest wish of his professional brethren in this country.

NOTES FROM SPECIAL CORRESPONDENTS.

PARIS.

THE French Surgical Congress. — The principal event of the past week has been the opening of the first session of the French Surgical Congress. The idea of holding an annual congress was first proposed by Prof. Demons, of the Bordeaux faculty, to the Société de Chirurgie.

At the first sitting it was decided that they would meet yearly in Paris, and as the time chosen conflicts with the meeting of the German congress, it was voted that future meetings would take place in the latter part of October.

Professor Trélat was elected President, Dr. Ollier Vice-President, and Dr. S. Pozzi Secretary and Treasurer.

The sittings have been largely attended by a great many of the most distinguished Continental surgeons, and a very large number of interesting papers were presented. A fifteen-minute rule being enforced, everybody had to keep to the point. A list of the articles would almost take up the limits of our letter, so we must content ourselves with a rapid *résumé* of the most important of them.

Pathogeny of Suppuration.—Dr. Socin, of Basle, Switzerland, read a remarkable article on this subject. He said that all are agreed that suppuration is an accident in wounds, and that it is the first and most important of all complications, for a wound that does not suppurate is out of danger as regards most of the infectious troubles. Several years ago M. Pasteur found in five cases of furuncle and in the pus of an osteomyelitis a microorganism forming little spherical points, often seen in small bunches. The method of culture in gelatin or in solidified blood-serum invented by Koch has given a new indication and impulse to our studies of these pyogenic microbes, of which several have been described by different authors. He had made some experiments with his assistant, Dr. Garri. First, as to osteomyelitis, he had found, as Rosenbach and Krause did, both the yellow and white form of the microbe in pus, and he also succeeded in finding them in the blood. In six tubes of blood only one remained sterile; in the five others he found a mixture of both kinds. In a series of thirty trials both were found, the "Staphylococcus pyogenus albus," or white, and the "aureus," or yellow variety. So he felt that it could not be doubted that they played a very important *rôle* in the etiology of suppuration.

They afterwards found the same parasite in a large number of abscesses, furuncles, phlegmons, whitlows, etc. In seventy-six cases the yellow parasite was found no less than sixty-eight times; in the other eight cases they found the streptococcus. These were very serious cases, and death followed by septicæmia. This fact would seem to bear out the assertion of Rosenbach, who said that the streptococcus belongs to the very malignant forms of disease. They concluded that osteomyelitis had no specific cause proper to itself, but that it had, in common with various acute abscesses, phlegmons, whitlow, etc., the same forms of micro-parasites that produced them. Dr. Garri was not satisfied with theory and the proofs they got by microscopical examination with artificial culture, so he experimented on himself. He first inoculated his left third (ring) finger with a small quantity of the microbes from the blood of a patient having osteomyelitis, and in twenty-four hours he had an abscess that went all around the nail. The re-inoculation of this pus on gelatin gave a culture of the yellow pus-microbe. He then took an entire tube of this microbe obtained directly from pus and inoculated himself again, this time on the arm and by inunction or friction only. In six hours the skin was red, swollen, and painful; the same evening some small pustules appeared, and the next day they were as large as a small pea. In spite of treatment, it went on for seven days with very alarming symptoms, swelling of the ganglions, etc.; taking on, in fact, the character of an immense anthrax. In short, it took three weeks to cure, and left the courageous experimenter with seventeen cicatrices to show how he had suffered in the cause of science.

From these facts they concluded that whitlow, furuncle, phlegmons, etc., are infectious affections due to the presence of pus-microbes; that they are just the same as those of osteomyelitis, and the experiment of their introduction by friction proves that the opening of the skin is not necessary. It is useless to insist on the practical importance of these observations to explain surgical cases that we see daily.

Tarsotomy in Old Cases of Club-Foot.—Dr. Gross, of Nancy, presented a paper on this subject. He gave first the various methods proposed for treatment of club-foot, and proceeded to show that tarsotomy was only lately

brought into favor. Since 1883 he had treated three confirmed cases of club-foot by this operation, which consisted in a general way of extirpation of the astragalus and resection of the anterior extremity of the calcaneum. The results obtained were good. The foot was brought to a right angle. Sometimes there was a slight deviation inwards, but this was easily corrected by wearing an apparatus for a while. The foot was made to rest squarely on the ground, bearing on the heel and the sole. This combination of the resection of the calcaneum as well as the extraction of the astragalus was much superior to the extirpation of the astragalus alone, so M. Gross strongly advised it, done of course with antisepsis. It had no risk for the patient, and restored the foot to its normal form, as the doctor showed with plaster models of his cases, both before and after the operations.

Operation of Cataract by Extraction.—The two prominent eye-surgeons, Dr. Panas and Dr. Galezowski, spoke on this subject. M. Panas said that ever since the invention of the method of extraction, eye-surgeons had oscillated between Daviel's operation and the operation recommended by Graefe, which was a modification of Daviel's. For two years, since we have all adopted the antiseptic method, the only objection that had been urged against Daviel's operation, which was its tendency to produce panophthalmitis, has disappeared, so that there is now a tendency to go back to the original operation instead of Graefe's, which had been universally adopted. Daviel's operation with the flaps, slightly modified, offers many advantages. In an æsthetic point of view there is no comparison between the two methods, as Graefe's operation sectioned the iris and Daviel's kept its normal shape intact. The issue of the vitreous is also less frequent, inflammation of the traumatised iris is less to be feared, and often the inflammatory process following the cataract, commencing by the inflammation of the cornea and going to the posterior chamber by the breach made in the iris, is avoided in the French method (Daviel's), as in it the iris, remaining intact, forms a wall that separates the cornea from the posterior parts. He thought also that the patients could see much better.

Alongside of these advantages there are but few disadvantages. With antisepsis, inflammation is not to be feared. But he stated that Daviel's operation is a more difficult one than Graefe's. Employing cocaine, however, will permit the surgeon to operate without pain mostly and allow one to take time. It had been said against Daviel's operation that there was danger of hernia of the iris, but this can easily be prevented by cutting the flaps longer.

Dr. Galezowski, who followed, said that he was one of the first to come back to the French method. To make it perfect, the principal modification needed is to change the corneal flap by making a flap of the cornea semi-elliptical in shape, and pushing back the iris with a stylet. By this means excellent results are obtained. As to the use of cocaine, he did not share the opinion of M. Panas, as he had noticed a persistence in the insensibility of the parts that lasted five or six days, and he thought that it favored the partial necrosis of the corneal tissue, and that it might prevent cicatrization and the primitive reunion of the wound of the cornea; so he did the operation without the use of cocaine.

Dr. Panas replied that, as regards the temporary insensibility, he believed it was due to the section of the nerves of the cornea, and not to the use of the anæsthetic.

Indications in Urine-Examination of Surgical Cases.—Prof. Verneuil spoke of a point in regard to examination of urine and the information it may give to surgeons. He would not say that the point was new, as it had preoccupied him since 1867, and he had studied it ever since. His conclusions are as follows:

1. The urine of patients operated upon or wounded often presents a rose-colored deposit, which has been called *acide rosacic.*

2. This phenomenon coincides with oliguresia and the usual concentration of urine seen after operations. It lasts three days, and is often not thought of.

3. It will appear after all sorts of wounds, both in weak and strong subjects, with or without anterior maladies, so that its signification and origin would seem to be uncertain; but it is now established that it is under the influence of some lesion of the liver, cirrhosis, congestion, hydatids, or cancer.

4. The hepatic alterations caused by alcohol seem to have the lead in causing these deposits.

5. These rose-deposits have a real value in diagnosis, as they announce a morbid state of an important viscus, and one that is often latent and difficult to recognize. It is also one that will exercise a very unhappy influence over the march and termination of the surgical lesions made.

6. The prognostic value is also great. It is true that it is not always followed by trouble; but it is well to know beforehand that patients having this rose-colored urine are exposed (in his opinion at least) to consecutive hemorrhages and gangrene.

7. To prevent as much as possible these complications, we must be assured of hæmostasis and antisepsis by using all the modern means for those purposes, and at the same time direct a proper medical treatment, not only before, but also during and after the operation.

M. Verneuil then gave at some length a number of observations to prove his statements.

Dr. Thiriar said that the examination of urine would give some very important indications to the surgeon. Before operation, in abdominal tumors, the determination of the quantity of urea can clear up a diagnosis if it is doubtful. In tumors of a malignant type the urea will go down below twelve grammes. The analysis should be made for several consecutive days, and the subject must be exempt from tuberculosis and albumen in the urine. We should also take into account the alimentation of the patient. After the operation the determination of the chlorides will help us most, for an exaggerated amount will denote that the inflammation is going to be more than normal, and that it will most likely take a destructive form. When the urinary chlorides fall, after an abdominal operation, below one gramme for twenty-four hours, there is danger of septic invasion of the peritoneum, even if nothing else shows it. This is a sure means of allowing us to interfere in time to do good.

Dr. Kermisson, who followed, speaking of the amount of urea in case of cancer, first of all called attention to the amount given in most books of the normal quantity of urea (thirty-two grammes). He did not think it was over eighteen to twenty grammes as a rule. He found that it was very uncertain in many people, so that the diminution which was spoken of by several authors in cases of cancer could not be held as a good sign in diagnosis. Grégoire found eighteen to twenty often in cases of cancer of the liver, and others have seen as much: so there are plenty of exceptions to the law of Romeler. He had found four grammes of urea in a woman who had cancer of the breast, and six in another case, but both were cured after an operation. Moreover, according to the theory of Romeler, in benign tumors the urea should remain normal, but he had found a great difference.

Artificial Anus.—Dr. Trélat said that when he commenced to defend the treatment of cancer of the rectum by a palliative method, he adopted the lumbar operation, and he had constantly operated from that side. It is possible, owing to certain perfections brought to the other operation on the iliac side, that that operation will be an improvement. He knew that the lumbar artificial anus is the most difficult to make, but he thought that it had introduced a real revolution in the therapeutics of cancer of the rectum. As to the future, he was willing to adopt the iliac operation as soon as sufficient statistics are given to show the relative gravity of the two operations.

Dressing of Wounds.—Dr. A. Guérin said that he wished to demonstrate the value of his dressing in transporting wounded patients. For twenty years he held that purulent infection and erysipelas were contagious and that they were transmissible by the air; so he took to his system of filtration of the air. In 1870 he had said that these fermenting principles penetrated the wounds, and it was by filtering the air that he had succeeded first in preventing the entry of the destroying microbes and preserved the wounds from them. (This system is now adopted in all of the hospitals of Paris, antiseptic cotton wadding being applied to all wounds.)

He then proceeded to show how, with his dressing, patients could be transported even in wagons without springs. Those who have followed his hospital service have seen him press with all his weight on wounds without pain to the patient. It is well understood that immobilization is the rule, and one would be surprised how solid a part can be made with wadding and bandages. After forty-eight hours the bandages give way, and they must be renewed. He contended that his system is all that is needed to immobilize a part so that the patient can be transported. Dr. Guérin closed by hoping that his system would be tried by all, and in military surgery in particular.

Professor Verneuil on a New Method for Colotomy.—Prof. Verneuil said that he had adopted the inguinal method for colotomy and defended it for some years back; but, after having tried it recently in some ten cases in which he had the patients followed for a long time afterwards, he was led to see some radical defects in the operation, which he could speak of more freely as he hoped he had found a means of remedying them. This he did by changing the operation without increasing its difficulties. The inguinal anus is established to ward off the fatal consequences of an obstruction, which may be congenital or acquired, complete or incomplete, having its seat on some point in the recto-anal passage. The operation is essentially palliative, and the opening may remain permanent or it can be obliterated afterwards according as the cause may be a permanent one or otherwise. The chances are that, once established, it will remain as long as the patient lives. This being so, the surgeon when he attempts this operation should so constitute the artificial anus that it will function well from the first day to the last. It seemed to him that we have not thought enough of the future in the operation of inguinal colotomy, particularly of the chances of a narrowing, which is so frequently produced. He had seen it contract, as it were, almost under his eyes: often the orifice has been reduced to ten millimetres in width. At first this surprised him. He had lived under the idea that wounds healing by first intention,

not presenting any granular layer or suppuration, could not contract under the skin; but the contrary had been proved. He looked for some explanation, and proceeded to give one. He spoke of the operation in the following terms:

"In the usual form of it, the iliac S is drawn to the edge of the abdominal opening and fixed at that point. It follows that the artificial anus has no spur or heel, or at least it continues above and below one straight line of intestine, so that anything coming from the stomachal end has as much tendency to fall into the rectal end as it has to come out at the opening. The segment then of the large intestine between the real anus and the newly-made one continues to receive fecal matter, that distends it, brings on tenesmus, with a strong desire for defecation by the constant irritation produced. This is made worse when the inevitable contraction of the artificial anus comes on. How does this narrowing occur? As follows: The incision is made in the abdominal walls parallel to the crural arch. It separates rather than divides the fibres of the aponeurosis and the fibres of the obliquus externus and internus with the transversalis, so that the button-hole style of opening made conducts to a peritoneal cavity that is serous on its inner walls; but the opening remains cutaneous on its outer walls, and it is fibro-muscular in the interstice. This being so, its lips have a natural tendency to draw together, and do so even during the operation, while the portion of the large intestine drawn out is flattened from above downwards by the contraction of the muscular fibres.

"If the opening would only remain soft and extensible, it then would not matter; but it becomes rigid, owing to the fact of a number of sutures that have to be placed around it to fix it to the belly and to prevent any possible inoculation of the wound or the peritoneum by the fecal matter. These sutures provoke an inflammation that extends to a zone of some three centimetres. It is true that this subsides under treatment in a few days, but the plastic tissue left behind obeys the law of cicatrization and retracts slowly but surely: like the cords of an old-style purse when drawn tightly by a careful owner, it narrows the opening until nothing is left. I have tried in vain to prevent this contraction by the introduction of all sorts of bodies that were more or less tolerated, but have had not one success.

"I think now I have found a means to fulfil the two most prominent indications, which are: (1) insure an easy passage of the matters as they come down from the stomachal end; (2) prevent them from going into the rectal end.

"The mode of operation that I propose differs so little in the living and the dead that any one may perform it on the cadaver. The region is carefully washed, and shaved (if needed), and a spray of some antiseptic liquid is afterwards kept going over it all the time of the operation. A line drawn from the spine of the pubis to the superior-anterior spine of the ilium indicates exactly the situation of the pubic arch. From the union of the external third of this line with its internal two-thirds a new line is drawn to the umbilicus, and on this last line I make an incision coming from above. It should be about four centimetres long (say one inch and three-quarters), and terminate on the Fallopian ligament. The bistoury, having divided the skin and the aponeurosis, can be laid aside for a pair of dissecting-forceps and scissors, with which the muscles and at last the peritoneum can be divided by small snips. Care must now be taken to place six hæmostatic pincers around the borders of the cut, so as to be sure later on that you have taken in the peritoneum. The opening will also be distended by them, and a few vessels found on the walls having been twisted, you will now look for the sigmoid flexure, which can readily be found, as you will recognize it by its epiploic appendices. Should a little bend of the small intestine present itself, push it up, and the large intestine will be found exactly in the sinus formed by the internal iliac fossa and the abdominal walls. Pull out enough of the intestine to make a protuberance as large as a small chicken's egg, and to prevent this part entering you can transfix it with two acupuncture-needles, which may be allowed to lie on the belly, holding the intestine in place. Now apply about fifteen metallic sutures, and as soon as they are fixed to pearl buttons or twisted you can take away the needles and the pincers. Then let the part be washed, and proceed to open the intestine."

This he does by a resection of the part protruding, and he then cuts off a section about three or four millimetres from the line of the sutures, taking all away to the centre, leaving the opening with a sort of collar of the intestinal wall that turns back. The intestine is quite thick here and vascular, so when it is cut several little arterial streams will jet out. So, therefore, he passes a thermo-cautery heated to a dull red over the part: that is, only on the outer surface of the cut, being careful not to touch the inner portion, which is to form the heel or spur. Sometimes when the intestine is opened fecal matter will be found, but not so frequently as one would think. If found it will have to be removed, but if not, it is best not to inject the intestine to remove any deposit. The surface presented is rough, folded on itself, and red in appearance, while it is covered with the intestinal mucus. The two orifices seem to be almost in the same axis, but if carefully looked at it will be seen that the angle is an obtuse one, so that a spur or heel is formed

on the inferior opening that prevents the fæces falling into it.

It takes twenty-five minutes to perform this operation, which includes dressing and all. The dressing is quite simple: a small compress of gauze-cloth which is dipped into a solution of carbolic acid (or a solution of corrosive sublimate) is placed over the wound. (The cloth has a hole cut in it a little more than the size of the opening, to correspond to it.) In the orifice itself is placed a very small fine sponge, wet with an antiseptic solution. This is destined to receive anything that may come down. Over this is placed a wad of the antiseptic cotton wadding, and lastly a bandage is placed around the body.

This operation differs from the usual one in three ways:

1st. By the direction given to the abdominal incision.

2d. By the formation of the heel or spur to separate the ends of the intestine.

3d. By the partial excision of the intestine, instead of the usual linear incision.

The first modification prevents the contraction of the opening, while the third acts in the same way, and the second impedes the fæces entering the lower bowel, thus preventing mechanical irritation, which, when the rectum is affected with cancer, causes very acute suffering. It is, of course, understood that in the rare cases where a cure may be hoped for, the old or Littré's operation is to be preferred. He promised to publish in a short time the results in three cases in which he had performed this operation. He could say already that the operative success had been complete and the relief from pain entire.

He proposes also to study the best method of fixing the intestine, as the borders of the wound are subject to inflammation. It may be best to only take in the sutures the skin, the peritoneum, and the intestine. Perhaps, also, it would be well to take off the sutures after the fourth day, which is long enough to be sure of the adherence of the peritoneum. It may even be well to take into consideration a method of fixation proposed by Maydl, of Vienna, which dispenses with sutures altogether.

Applications of the Antiseptic Method to Eye-Surgery.—Dr. Panas, the well-known eye-surgeon of the Hôtel-Dieu, spoke on this subject at the Academy of Medicine, saying, "I was an ardent partisan of Lister's method from the first, but I soon gave up the use of spray in ocular surgery. For my part, I am disposed to think that the only preparatory antisepsis for eye-operations should consist in thorough *lavements* with injecting instruments in the *cul-de-sac* and in all the folds of conjunctiva; sometimes even in the lachrymal passages; and when there is chronic catarrh of the parts that cover and are near the eye I do not neglect the nasal fossæ. All instruments, and in fact everything needed for operations, should be plunged into some antiseptic solution that has no irritative quality for the eyes. They can be wiped off afterwards just as needed with absorbent cotton that has been scorched over an alcohol-flame. After a number of experiments, I have convinced myself that a solution in water, at ten thousand, of the bichloride of hydrargyrum, or a similar solution of the bi-iodide of mercury at twenty-five thousand, is much superior to any other antiseptic solution employed in eye-surgery. A litre of water will dissolve four or five centigrammes of the bi-iodide of mercury. The preparation of the solution can be made in two ways: either by allowing a quantity of the bi-iodide salt to macerate for a long time in cold water, shaking it from time to time, or by dissolving in water at 50° C. one gramme of the bi-iodide in twenty-five litres of the water, or in any proportional quantity. When I am called in town and have to prepare a solution, I substitute the following:

"℞ Hydrarg. bichloridi, two centigrammes;
Aquæ, one litre. M.

"To this I add as much hydrochlorate of ammonia, or from two to four grammes of pure glycerin.

"The dressing after the operations is made with round bits of cloth that have a pomade of the bi-iodide on them, or they are dipped in a watery solution of calomel. (I find after the operation that the prolonged closing of the eyelids is advantageous.) The dressing should be renewed twice a day. I employ to cover the eyes, in place of Lister's gauze, simple carbolized cotton or the cotton with boric acid. This may be scorched a little. The results obtained by this system of eye-antisepsis have surpassed my best hopes, and erysipelas has been banished from our wards, while our operations cure without any accidents of any kind, including, as they do very often, such important operations as enucleation of the globe, extirpation of tumors, autoplasty, etc., all of which cure without any trouble."

Extirpation of a Cancerous Kidney.—Dr. Péan, the celebrated surgeon of the St. Louis Hospital, gave an account of this operation: "In late years the ablation of the kidney has come to be quite a frequent operation, owing to its displacement, or from fistulas or contusions that put the patient's life in danger. It is almost always from the back or lumbar region that the surgeons attempt the operation, and they meet with success as a rule. The ablation of the organ is rarely attempted for the large tumors that sometimes develop there, and particularly for the malignant tumors that sometimes acquire a considerable volume. The fact is that in such cases the lumbar region is not large enough, and the abdominal way is the only way to

reach and extract the tumor. Here it is not enough to open the abdomen, but a path must be created among the folds of the mesentery, the intestines must be pushed aside, and care must be taken not to interfere with the cellular tissue and the dilated vessels that one meets. You understand how very difficult this is when the tumor is large enough to fill up the whole of the belly, just as in the ninth month of pregnancy for instance. So this will explain why surgeons as a rule have not undertaken the operation. We have found some twenty-one cases that have been attempted; they gave ten cures and eleven deaths. Eight times the tumor was small enough to allow the operation to be made from the back; in these eight six succeeded and two died. Thirteen of the other cases had to be operated on from the abdominal side, and they gave nine deaths and four cures.

"The small number of successes was not very encouraging: so when I saw the patient that I now present to you some six years ago I was not disposed to attempt the operation. She then, as is the case with all of them, went to all sorts and kinds of doctors and took a large number of remedies. I saw her again some fourteen months ago, and notwithstanding the principal surgeons of London had refused to operate (she is English), she insisted that I should operate, which I did.

"I made an incision in the median line, from the pubis to the epigastric region. I cut the fold of the mesentery on the side of the bends of the small intestine, and pinched a number of the dilated veins found on its under surface. I then saw that the tumor was surrounded by an envelope proper to it, which allowed me to detach it partly with my fingers before proceeding further. I then commenced to cut it into small pieces, in this way taking away nearly all of the tumor. The patient here lost some blood, and we gave her a subcutaneous injection of ether. Arrived at the profound face of the tumor, we saw that it was attached to the right kidney and really planted in it: so, after having tied the renal vessels and the ureter together with two ligatures, we took away the kidney. We then brought together the folds of the mesentery by means of three partial ligatures, being very careful of the intestines, and we abandoned our ligatures in the belly. With all its difficulties, the operation took one hour.

"In three weeks the patient left the hospital, and finished her convalescence in the country. The tumor weighed six kilos. M. Robin examined it and found it was an epithelioma, so we feared it would not be long before she would have a return; but you see she is still in a sound state, and examination of the urine shows that the kidney remaining is enough to give a normal quantity daily, which is of the same chemical constitution as that of a woman in good health. This operation proves that the surgeon, when he finds himself in face of these large malignant kidney-tumors, must not despair of a cure."

Tænia Cysticerci in Man.—Dr. Troisier said that he had in the wards a man who entered the hospital for nephritis. In examining him he discovered in different parts of the body some small tumors that were subcutaneous and movable under the fingers. Some of them were superficial and formed quite a prominence, and others could only be felt on touching the place where they were concealed. For the most part they were but slightly elastic, and they were not at all painful. One of these small tumors, that was situated under the aponeurosis of the latissimus dorsi muscle, was removed for examination. It was an ovoid cyst, transparent, formed by an external shell and a vesicle, containing a liquid that looked like water, but in which Dr. Straus found the hooks of the worm and some calcareous corpuscles. So it was without doubt the cysticerci of the tænia that caused the tumors. No less than forty of these tumors were counted over the surface of the body. It is now known, since the researches of M. Redon, that the cysticercus of man is the same as that found in pork, which develops into the tænia solium. There is here an exception to the law of alternate generation, as this germ of the tape-worm can live in the scolex state in man as well as in the adult state. For this man to have become *ladrè* or measly, he must have swallowed the eggs of the tænia, or, being himself afflicted with the solitary tape-worm, can he have infected himself with the eggs of his own tænia?

In this last supposition he believed that all must admit that the joint with the eggs got into the stomach instead of passing out with the evacuations. For the tænia does not hatch in the intestine itself; and, besides, the intestinal juice is not enough. It needs the gastric juice to permit the hexacanthe embryo to come out and penetrate the tissues. Finding that our patient had no tænia, he sought to find out how he could have swallowed the eggs of the tænia, or how it could have got into his stomach. All he could find out was that his wife has had tape-worm for seven years. He could not understand this coincidence. Without explaining this case, it is well to remember that in the country the eggs of the tænia may be swallowed in drinking water from streams that may be contaminated.

THOMAS LINN, M.D.

PARIS, April, 1885.

NEW ORLEANS.

THE thirty-sixth annual meeting of the American Medical Association conformed in its main features to the traditional pattern. The attendance was large, though

scarcely more than half the number present at the last session in Washington. The reason of this is not far to seek, when we reflect upon the geographical position of New Orleans, with a population not exceeding two hundred and fifty thousand, the centre of a vast region neither rich in people nor in wealth, and distant many hundreds of miles from any other city of equal population. This matter of remoteness had the same influence upon the *personnel* of the Convention as upon its numerical strength. Not even the additional attraction of the great World's Exposition prevailed to overcome the obstacles of time and distance and fatigue, and many of the strong men who have taken part in the proceedings in past years were absent, or present only in name. Nevertheless, the profession in all parts of the Union was, all things considered, fairly represented. The meetings were well attended, both in general and in sections, and a more than active interest was noticed in questions relating to the profession at large, and especially to its geographical representation in council.

The scientific work of the sections was not above the average of past years. In fact, the papers and the discussions which they elicited go far to confirm the view that the organization of the Association is not favorable to the best professional work. We observed the old tendency to be prolix, especially in some of the orations delivered in the morning sessions by the chairmen of sections.

The grateful acknowledgment of every delegate is due to the Committee of Arrangements. Rarely has the comfort of the Association been more efficiently looked to. The arrangements for registration were ample, and that disagreeable duty was performed without delay or crowding. The post-office was convenient and practical, and the gentleman in attendance courteous, prompt, and intelligent. The general meetings were held in the great hall of Tulane University, and the sections in the same and in the adjacent building. Ample accommodations were found in the hotels or in private boarding-houses. Not a few of the delegates, anxious to see something of the Creole life, which preserves the traditions of the ancient glory of the Crescent City, secured rooms in the French quarter. This plan was not without its reward. One sees but little in these days of the Creole at home. His fortunes are fallen, his glory has passed away, he has drifted down into an age the activity and struggles of which are too much for him. He bears his misfortunes with equanimity, but cherishes the memories of better days. He is obliged to let his rooms to strangers, but he is conscious of the humiliation, and is prone to refer rather mournfully to the past. In the old town one realizes to a fuller extent the changed life of the old population. Behind the plain fronts of the houses are found great airy halls, and spacious chambers furnished in a style which, faded as it is, tells the story of past wealth and luxury. Bronzes and tapestries and enamelled French clocks are here to be seen, the counterpart of which scarcely exist outside of France, and there are broad galleries looking out upon gardens surrounded with high walls and for the most part still well kept, where grow, among more familiar flora, sub-tropical fruits and flowers which we call exotics. Running out from these old houses and overlooking the gardens are the high, small-roomed annexes formerly occupied by the slaves, providing ample space for the solitary charwoman who now forms the sole retainer of the house. These old servants speak English and French with equal facility, but prefer to express themselves in that curious patois which the American residents term, in derision, Gumbo French. More curious, more interesting I should say, than the exotics of the garden, are the exotics of the house,—plants that in more than a century are still strange to the soil. These people are neither French nor American. Too long exiled to be the one, they have lived too remote from the life of the other to grow into it.

One is struck in New Orleans, when surrounded with French society, with the absence of the Frenchman's proverbial gayety. During our brief stay we found the living in New Orleans good, but rather expensive. There was much private entertainment, and several handsome receptions were given, both inside the profession and outside its ranks. Those among us were perhaps most fortunate who had comfortable rooms and were put down at one of the clubs, where excellent meals are served at a very moderate cost. There is much of interest to engage the attention of the new-comer, much to surprise him. Lottery-tickets are exposed in the shop-windows, and a great licensed gambling-room opens upon the principal streets. The streets are filthy, the gutters foul; in many places they degenerate into wide, open drains filled with stagnant water, scum-covered and stinking. Household offal is emptied into the unpaved streets. The French market is an abomination. To a visitor from the North the marvel is, not that New Orleans suffers from serious outbreaks from epidemic diseases, but that she is ever free from pestilence. Owing to the lowness of the level and the character of the soil it is impossible to dig graves, and the dead repose in vaults built above the surface. This repose is not always an unbroken one. Tiers of vaults large enough for a single coffin are built along the sides of some of the cemeteries. These are occupied for the most part by the dead of the poor or moderately well off. It was the misfortune of the writer to come across some workmen raking out the contents of one of these vaults. They were the coffins of children broken and scattered with

their contents. Probably the family had defaulted upon the rent.

To return to the Convention (*nos moutons*). The most important measure which occupied the attention of those present related to the International Medical Congress of 1887. The committee appointed at the last meeting to present the invitation at Copenhagen on behalf of the medical profession of the United States, reported that the invitation had been accepted and the preliminary organization effected. This report was, on motion, made the special order of business for the following day at twelve o'clock. The action of the Association is well known to the profession. What its results will be remains to be seen. Every true friend of the medical profession of the United States must realize the dangers which now threaten not only the success of the International Congress, but also the welfare of the Association itself. It is to be hoped that the members of the joint committee will act with the deliberation and judgment demanded by the important interests at stake, that personal ill feeling and petty personal ambitions will yield to the general welfare, and that wise action will triumph over passion and prejudice. The discussion of this report and of the resolutions to which it gave rise brought into unpleasant prominence the defects of organization of the Association and the lack of discipline among its delegates. It is worthy of comment that the voting was carried on in an extremely loose and irregular way, and that there were no means by which to distinguish delegates entitled to vote from non-qualified voters, the sense of the meeting being taken *viva voce*. It is to be hoped in future meetings for the transaction of general business, either that delegates only will be admitted to the floor, or else that every voting delegate will be required to wear a conspicuous badge.

Another matter of considerable interest related to the future of the *Journal*. We congratulate the profession that the disposition of Dr. Davis to resign his position as editor was not carried into effect. And we congratulate Dr. Davis upon the success which has attended his self-sacrificing efforts in behalf of the *Journal* thus far. We join with him in the hope that the *Journal* will ere long assume its true position as the official exponent of the views and the work of the Association, and through it of the profession of the United States. The selection of St. Louis as the next place of meeting was in violation of the action of the Association taken last year, by which it was determined to meet each alternate year at Washington, D.C., and will probably give rise to dissatisfaction among the more thoughtful members of the Association, in view of the important matters which will then come up for discussion.

To the American Medical Association, as to other similarly organized bodies, this Creole proverb, difficult to translate, but pregnant with meaning, is applicable,—"*Marché narien, lazambes qui bisoin.*" M. Z.

PROCEEDINGS OF SOCIETIES.

THE AMERICAN MEDICAL ASSOCIATION.

THE Thirty-sixth Annual Session of the American Medical Association was held at New Orleans, from April 28 to May 1, inclusive. The Committee on Arrangements provided Tulane Hall for the general meeting and for the section on Medicine, the other sections meeting in the lecture-rooms of the Tulane University and Grunewald Hall.

The committee under Dr. Logan deserve high praise for their labors: they planned wisely and well in securing the comfort of the members and the success of the meeting. Receptions in honor of the Association were given by Prof. T. G. Richardson, Mr. Cartwright Eustis, the New Louisiana Jockey Club, and by the medical profession, assisted by the ladies of New Orleans, which contributed materially to the social enjoyment of the members present.

First Day's Proceedings.—The session was opened by prayer on Tuesday morning, at eleven o'clock. Dr. Samuel Logan, of New Orleans, chairman of the Committee on Arrangements, delivered a brief

ADDRESS OF WELCOME.

He eulogized the Association and the great profession which it represents, referred to the last meeting of the Association in this city more than a decade ago; speaking eloquently and reverently of the memory of the great man who did so much to unite the profession after the war, and who, with this end in view, urged the selection of New Orleans for that meeting. By personal efforts also he secured the election of a distinguished Alabamian as President of the Association; his wishes were followed in afterwards electing his pupil, Dr. Richardson, of New Orleans, and also in the choice of the present incumbent, another distinguished Southerner, Dr. F. F. Campbell, of Augusta, Ga.

In conclusion the speaker referred to Prof. Gross in the following words: "Would, Mr. President, he were with our other ex-Presidents at your side on this occasion! To few, indeed, is it given to be great in heart as well as brain; but were we asked to point from our ranks a single instance of this happy combination, what name would spontaneously start from every lip but that of Samuel D. Gross? May his well-spent life prove an ever-fruitful example for the young men of our profession, and may his noble spirit be ever present with us all, to bind us with an enduring bond of brotherhood."

The ex-Presidents of the Association were invited to take seats upon the platform: Drs.

N. S. Davis, of Chicago; T. G. Richardson, of New Orleans; and J. M. Jones, of Washington, complied.

After the presentation of the programme by the Committee on Arrangements, including invitations to several entertainments, Dr. Henry F. Campbell delivered the

ANNUAL ADDRESS OF THE PRESIDENT.

The address began with a glowing tribute to the distinguished members of the profession who had formed the Association, and whose wisdom had guided its deliberations. He said, "Far lagging in the rear would have been the Old World had it neglected the record and literature of the New. In the long line of our noble ancestry, among others who adorn the gallery of our progenitors, Rush and Physick, McDowell and Atlee, Deadrick and Smith, Dudley and Eve, Silliman and Hays, Mott and McClellan, Gross and Sims—some of these among the illustrious dynasty of this Association—have each opened to the minds of all nations new fields of science, of labor, and of literature, in which to energize,—and, dying, have all left their impress deeply and ineffaceably graven upon the tablets of scientific progress of the Old as well as of the New World. Now, may we ask, who dares *not* to read?" From eulogy of the dead the speaker turned to praise of the master-minds still living,—"the contemporaneous makers of the scientific history of our own times." He made an eloquent plea for words of encouragement and loving sympathy to those who are still living. "Who is it that has fought shoulder to shoulder with another in the veteran grand army of the world's campaigns, and has seen him fall out of the ranks to rise no more; who is it that has stemmed with another the current of the mighty river of Time, or battled with the waves on the tempestuous ocean of Life, and seen him suddenly and forever sink beneath the dark waters, and has not mourned the last word unspoken and bitterly cried out, 'Too late?' The good-will and the assurance he had been longing to utter have failed of their application, and they remain in his tender heart like 'unused spices' in the hands of loving women at the Saviour's tomb." "Custom and convention allow praise, panegyric, and loud lamentations to the dead, but command silence and repression to the living, however loved and worthy, and however near their journey's end." In doing honor to the venerable men who had faithfully served the Association, he finally singled out one "who, at the present time and before the present generation of laborers in the field, might stand prominent among us only by the encouraging and ever-inspiring magnetism of his presence, and by the stupendous and self-sacrificing labor in which he is ever willing to engage. He labors now as he did twoscore years ago. Well entitled is he to the honored name of 'the father!' No one of the sons of this Association can excel him in watchfulness for its interests, in tenacity for its honor, in unceasing labor for its advancement. No neophyte or tyro is he in its affairs. He presided at its birth, nursed it through infancy and childhood, was the guide and counsellor of its manhood, and now, in its ripe maturity, adds spirit to its energies, watches its progress, faithfully guards its good name, and is the laborious chronicler and promulgator of its intelligence.

"Too full of the meekness of wisdom to be elated by praise, too worthy of praise to be defiled by flattery, and among all the living standing foremost in the duration and constancy of his devotion, I could almost ask you to allow me, by virtue of the authority in which I am clothed, to bid him stand, as sovereigns bade their heroes kneel, and dub him with the ensign and the title, 'Noblest Roman of us all.'"

Congratulating the Association next upon the place selected for meeting, he also spoke in praise of the *Journal* as a great advance over the old form of publishing the proceedings. He referred to the meeting of the International Medical Congress of 1887 as promising great benefit and improvement to the medical profession of this country. The executive officials of these two great trusts, he declared, had faithfully and laboriously brought them to a state of progress assuring of brilliant and permanent results. The remainder of the address was devoted to the consideration of the present unsatisfactory relations of the medical profession to tribunals of law. The low estimate placed upon the value of medical testimony, the fact, according to the common law of England and in many of our own States, that testimony may be extorted from physicians, and the frequency of trials for malpractice in which the surgeon appears as defendant, are subjects deserving and demanding attention by the members of the Association. In conclusion, he recommended the addition of a section on Forensic Medicine, which should comprehend all the legal questions arising in the several departments of medicine; but besides them, "every question or occasion through which the medical man can be brought into relation with the tribunals of the law, whether as a medical witness, as a medical expert, or as a medical defendant; or in time, when he shall have attained his true dignity as Amicus Curiæ or adviser of the court, his dictum equivalent to conclusive evidence, his scientific wisdom worthily rewarded as enlightenment indispensable in the upholding of justice, and his profound and conscientious opinion accepted with the same unquestioning confidence in its integrity as that which is yielded to the judicial ermine and the charges from the bench." In conclusion, he requested that a committee be appointed to consider the expediency of organizing a section of Forensic Medicine, than which none could be of higher importance in

the present and in the future. In time may we not be able to prophesy of legal medicine, in the words of the now almost mythic Seneca, "The day will come when those things which are now hidden shall be brought to light by true and persevering diligence,—when our posterity will wonder that we should have been so ignorant of that which is so obvious."

A vote of thanks was tendered the President for his address, and a committee of five was directed to be appointed to which the suggestion with regard to a section on Forensic Medicine was referred. The Secretary subsequently announced the committee as follows: Drs. J. H. Quinby, X. C. Scott, W. W. Dawson, F. E. Daniel, J. V. Shoemaker, Eugene Foster, and H. F. Campbell.

MEMORIAL OF PROF. S. D. GROSS.

Dr. T. G. Richardson, on behalf of Dr. Austin Flint, chairman of the Special Committee appointed at the last meeting for this purpose, read a report embodying a sketch of the professional life of Professor Gross for publication in the Transactions of the Association. It was accepted and referred to the Committee on Publication.

NEW FIRE-PROOF BUILDING FOR THE ARMY MEDICAL MUSEUM.

Dr. J. S. Billings presented a special report upon the new fire-proof building for the Army Medical Museum and Library of the Surgeon-General's Office, for which Congress had made an appropriation, and upon which work will begin in a very short time. In behalf of the Medical Department of the Army he returned thanks to the Association for the tokens of confidence and approval manifested by it, in appointing the committee to aid in securing the appropriation.

INTERNATIONAL MEDICAL CONGRESS.

Dr. Billings also presented the preliminary report of the plan of organization of the International Medical Congress prepared by the Executive Committee, as instructed at the last meeting of the Association.

On motion of Dr. J. Keller, of Arkansas, the report was made the special order for the succeeding day at twelve o'clock.

MONUMENT TO DR. BENJAMIN RUSH.

A report on the erection of a monument in the city of Washington to Dr. Benjamin Rush, signed by Dr. A. L. Gihon, chairman of committee, was read, and, on motion by Dr. Jones, made the special order for Friday morning.

A number of visiting physicians were invited to participate in the proceedings.

DISCOVERER OF SURGICAL ANÆSTHESIA.

Dr. R. A. Kinloch presented a communication from the Medical Association of South Carolina upon the subject of the discovery of the anæsthetic properties of ether. On motion of Dr. R. Beverley Cole, it was referred to the section on Medicine, with a request that it furnish a report on the same to the Association.

The titles of several papers were read, and on motion they were referred to the section on Surgery.

Second Day's Proceedings.—The Committee on Arrangements read some announcements, and a telegram from Dr. W. O. Baldwin, of Montgomery, Alabama, one of the Vice-Presidents, regretting his inability to be present. The Committee on Nominations was announced.

ADDRESS OF CHAIRMAN OF SECTION ON PRACTICAL MEDICINE, MATERIA MEDICA, AND PHYSIOLOGY.

Dr. H. D. Didama, of Syracuse, New York, read the Address in Medicine, which commenced with a reference to cocaine hydrochlorate and the comma-bacillus, and expressed his belief in the formula, No comma-bacillus, no cholera. Acknowledging the existence of a large class of diseases due to bacteria, he did not think it necessary to agree with the mycologist in his effort to force all diseases into this category. There are disorders arising in the nervous system, or from deficient or defective blood-supply, or from diseased cells, as well as from germs, and by the interaction of these morbific influences diseases are produced. Passing from these, the reparative force, the *vis medicatrix naturæ*, the resisting power to disease, and the effects of the varying degrees of these upon the individual, were considered. In conclusion, he said,—

"No man liveth for himself alone. The good constitution, the strong resisting-power of the temperate and upright man, is not only a sure personal defence against diseases and a guarantee of longevity: it is transmitted to his offspring down to many generations. The dissolute man, broken down with diseases acquired while sowing his wild oats, suffers not alone. If he did, we might view the transaction with mitigated sorrow. He had his coarse enjoyment, and he can afford to reap corruption. But the evil that he does lives after him, in the blighted and wretched lives of his innocent children and his children's children. A priceless inheritance is a strong resisting combined with a vigorous recuperative power. He who has it and preserves it and fortifies it, living a clean and active life, eschewing bodily and mental excesses and clinging to the divine promises, may bid defiance to disease in its multifarious forms. He need not be afraid for the pestilence that walketh in darkness, nor for the destruction that wasteth at noonday. Free from fear,—the greatest depressant,—he shall walk unscathed through all perils. A thou-

sand may fall at his side, and ten thousand at his right hand, but disaster shall not come nigh him. And even when the onslaught of disease cannot be wholly warded off, the wounds inflicted shall have speedy healing."

ADDRESS ON OBSTETRICS AND DISEASES OF WOMEN.

Dr. R. Stanley Sutton, of Pittsburg, chairman of the section, next delivered his address, dwelling chiefly upon the history of ovariotomy, the title being "A Brief Review of the Growth of McDowell's Operation at Danville, Kentucky, in 1809, and its Present Status." The operation on Mrs. Crawford was performed before the days of anæsthetics. No antiseptics were used, except the pure air of a border town. No sponges were used on the abdomen, and the pedicle was dropped in after ligaturing. The patient survived the operation thirty years. The next operation was done in 1820. As late as 1862, but one success had been reported in Scotland: that was in a patient of Keith. In the United States, by 1843, eighteen cases had been reported, and in 1863 over three hundred cases had been operated on in this country.

Dr. Sutton showed that out of McDowell's operation had grown all the recent developments of intra-abdominal surgery, and claimed that the deviations from the method of performing the operation of ovariotomy were comparatively unimportant, the most decided being the introduction of the galvano-cautery by Baker Brown, and the cutting short of the ligature, as practised by N. R. Smith. He insisted upon the absolute necessity of surgical cleanliness in the operations, Listerism being the "gospel of cleanliness."

After reviewing the details of the modern operation, he closed with a warm tribute to the memory of Sims, who, like McDowell, had a genius for original investigation.

"He was beloved by his own countrymen and honored by the whole world."

PENINSULAR AND SUB-PENINSULAR AIR AND CLIMATE.

The construction of a health city in Florida was the subject of a volunteer paper by Dr. W. C. Van Bibber, of Baltimore, the object being to give information with regard to winter resorts for invalids. The benefit of the climate of the Gulf coast of Florida has been demonstrated by experience: he thought if a city uniting medical, social, and scientific interests could be founded in the sub-peninsular portion of Florida, that it would be without a rival as a sanitarium.

DISCUSSION OF REPORT OF COMMITTEE ON THE INTERNATIONAL MEDICAL CONGRESS.

The motion to adopt the report was opposed by Dr. J. V. Shoemaker, on the ground that the committee had exceeded its powers, and had been premature in organizing the Congress and in filling the offices. It was also claimed that the committee had failed to recognize men of eminence in the profession in the South and West.

A spirited discussion followed a motion by Dr. Daniels, of Texas, to reject all the officers proposed by the committee, and authorize the Committee on Nominations to make the appointments for the Congress. Finally, an amendment offered by Dr. Keller, of Arkansas, was substituted for Dr. Daniels's motion:

"*Resolved*, That the Committee appointed by the American Medical Association to arrange for the meeting of the International Medical Congress of 1887 be enlarged by the addition of members from this Association, one from each State and Territory, and from the Army and Navy and the Marine Hospital Service, and the District of Columbia, to be appointed by the present presiding officer, Dr. J. S. Lynch, of Baltimore, First Vice-President; and that this Committee, thus enlarged, shall proceed to review, alter, and amend the action of the present Committee as they may deem best."

An attempt was made to substitute a motion to adopt the report of the committee, by Dr. Sanders, of Tennessee, and was promptly voted down.

Dr. W. A. Byrd, of Quincy, Illinois, amended by moving that members of the committee from States represented at this meeting shall be named by the delegations, and members from the States not represented shall be appointed by the President. Dr. Keller accepted the amendment, and the resolution was carried.

Third Day's Proceedings.

OFFICERS OF SECTIONS.

The amendment offered by Dr. Foster Pratt, of Michigan, empowering each section to elect its own officers, was, after discussion, laid upon the table until the next meeting.

REPORT ON METEOROLOGY.

Dr. N. S. Davis, chairman of the Standing Committee on Meteorological Conditions and their Relations to the Prevalence of Diseases, presented a full report, including a communication from Prof. K. H. Long, of the Northwestern University. The report was ordered to be published and the committee continued.

THE COLLECTIVE INVESTIGATION RECORD.

Dr. Davis also reported from the Committee on Collective Investigation of Disease in Co-operation with the committee of the British Medical Association.

The report stated that these special investigations into disease were going on in nearly all the European countries, in India, the United States, and South America.

The committee recommended that they be authorized to continue their correspondence with the committee of the British Association and the committee of the International Congress, and that the detailed work be carried on by committees appointed by State Societies co-operating with the Central Committee and General State Committee. The Central Committee would act as the medium of communication between the local and foreign committees. The recommendation was adopted and referred for publication.

THE INTERPRETATION OF ETHICAL POINTS.

Dr. Davis, as the chairman of a special committee appointed last year to make some declarative interpretation of certain points in the Code of Ethics, submitted a report in the following form:

"*Whereas*, Persistent misrepresentations have been and still are being made concerning certain provisions of the Code of Ethics of this Association, by which many in the community and some even in the ranks of the profession are led to believe those provisions exclude persons from professional recognition simply because of differences of opinions or doctrines; therefore

"1. *Resolved*, That clause first of Article IV. in the National Code of Medical Ethics is not to be interpreted as excluding from professional fellowship, on the ground of differences in doctrine or belief, those who in other respects are entitled to be members of the regular medical profession. Neither is there any other article or clause of the said Code of Ethics that interferes with the exercise of the most perfect liberty of individual opinion and practice.

"2. *Resolved*, That it constitutes a voluntary disconnection or withdrawal from the medical profession proper to assume a name indicating to the public a sectarian or exclusive system of practice, or to belong to an association or party antagonistic to the general medical profession.

"3. *Resolved*, That there is no provision in the National Code of Medical Ethics in any wise inconsistent with the broadest dictates of humanity, and that the article of the Code which relates to consultations cannot be correctly interpreted as interdicting, under any circumstances, the rendering of professional services whenever there is a pressing or immediate need of them. On the contrary, to meet the emergencies occasioned by disease or accident, and to give a helping hand to the distressed without unnecessary delay, is a duty fully enjoined on every member of the profession, both by the letter and the spirit of the entire Code.

"But no such emergencies or circumstances can make it necessary or proper to enter into formal professional consultations with those who have voluntarily disconnected themselves from the regular medical profession in the manner indicated by the preceding resolution.

"N. S. DAVIS, of Chicago;
"A. Y. P. GARNETT, of Washington;
"H. J. CAMPBELL, of Augusta;
"AUSTIN FLINT, of New York;
"J. B. MURDOCH, of Pittsburg."

The resolutions were unanimously adopted.

ADDRESS ON SURGERY AND ANATOMY.

Dr. Duncan Eve, of Nashville, Tennessee, as chairman of the section on Surgery, read an address on recent advances in operative surgery. Special mention was made of the contributions of Dr. H. B. Sands, of New York, "On Internal Œsophagotomy;" Dr. J. H. Packard, of Philadelphia, on "Colotomy;" Dr. F. Lange, of New York, on "The Treatment of Bone Cavities in the Lower End of the Femur;" Drs. Keen and Musser, of Philadelphia, on "Cholecystotomy;" Dr. L. L. Pilcher, on "The Treatment of Wounds," and others. Surgical literature was then reviewed and some recent additions mentioned. The address closed with a touching tribute to the memory of the late Prof. Gross.

MISCELLANEOUS BUSINESS.

The Address on State Medicine, by Dr. E. W. Shauffler, of Missouri, was read by title, and referred. The Treasurer, Dr. R. J. Dunglison, of Philadelphia, presented his annual report, showing a balance on hand of $932.11, with an increase of one hundred and twenty-five new members. The plan adopted last year of admitting members by application had resulted in decidedly increasing the income of the Association.

The Report of Dr. Kleinschmidt, of Washington, the Librarian, was ordered to be printed without reading. Dr. J. M. Jones read the report of the Committee on Publication, including the report of the Board of Trustees of the *Journal*.

PUBLICATION OF THE JOURNAL.

According to the statement made, the *Journal* is out of debt at the end of its second year, its total income for 1884 having been twenty-one thousand dollars, and the total expenses, excepting editorial, twelve thousand dollars.

The place of publication will continue to be Chicago. The trustees took pleasure in announcing that, at their unanimous and earnest request, Dr. Davis had consented to withdraw his resignation, so positively tendered last year, and to continue as editor-in-chief under certain conditions, which were accepted by the trustees.

At the conclusion of the report Dr. Davis was called forward by the applause of the meeting, and made a few remarks referring to his stewardship. He explained the difficulties under which he had labored in conducting the *Journal*, and gave some whole-

some advice in regard to the course to be pursued. He urged the Association to have patience with the *Journal*,—not to expect it to rival immediately the Journal of the British Association. If prudently managed, and carried on within the limits of the revenue at hand, it would in the course of ten years become an enterprise not only supporting itself, but affording a fund for the prosecution of original scientific investigations.

PRIZES FOR ORIGINAL RESEARCH.

Dr. N. H. Reed, of Mansfield, Ohio, offered a resolution, which was adopted, establishing first and second honor prizes at the next meeting of the Association for the best and second best papers read in each section.

STATE BOARDS OF MEDICAL EXAMINERS.

Dr. J. B. Roberts, of Philadelphia, offered a resolution from the section on State Medicine, earnestly advocating the establishment in every State and Territory of Boards of Medical Examiners, who shall examine all practitioners, and whose license shall be the only license to practise medicine. Action upon this was deferred until the next morning.

DR. RUSH'S STATUE.

The report of the committee recommending the erection of a monument to Dr. Benjamin Rush, of Philadelphia, in Washington, was read by the Secretary. The report was ordered published and the attached resolution adopted, providing for the appointment of a standing committee on the Rush Monument, which is to be built by means of a fund made up of subscriptions of one dollar each from the physicians of the United States and such additional donations as may be made.

The following committee was named: Drs. A. L. Gihon, Washington; Henry H. Smith, Philadelphia; R. A. Kinloch, Charleston; S. C. Gordon, Portland, Maine; H. Murphy, of Tennessee; and Morris H. Henry, of New York.

NOMINATIONS FOR OFFICERS.

Dr. Kinloch, for the Committee on Nominations, reported the following officers for election:

President.—Dr. William Brodie, of Michigan.

First Vice-President.—Dr. Samuel Logan, of Louisiana.

Second Vice-President.—Dr. A. Y. P. Garnett, of District of Columbia.

Third Vice-President.—Dr. Charles Alexander, of Wisconsin.

Fourth Vice-President.—Dr. W. F. Peck, of Iowa.

Secretary.—Dr. W. B. Atkinson, of Philadelphia.

Treasurer.—Dr. R. J. Dunglison, of Philadelphia.

Librarian.—Dr. C. H. A. Kleinschmidt, of Washington, D.C.

Section on Practice of Medicine, Materia Medica, and Physiology.—Chairman, Dr. J. T. Whitaker, Ohio; Secretary, Dr. B. L. Coleman, Kentucky.

Section on Obstetrics and Diseases of Women.—Chairman, Dr. S. C. Gordon, Maine; Secretary, Dr. J. F. Y. Paine, Texas.

Section on Surgery and Anatomy.—Chairman, Dr. N. Senn, Wisconsin; Secretary, Dr. H. H. Mudd, Missouri.

Section on Ophthalmology, Otology, and Laryngology.—Chairman, Dr. Eugene Smith, Michigan; Secretary, Dr. J. Fulton, Minnesota.

Section on Diseases of Children.—Chairman, Dr. W. D. Haggard, Tennessee; Secretary, Dr. W. B. Lawrence, Arkansas.

Section on Oral and Dental Surgery.—Chairman, Dr. J. H. Marshall, Illinois; Secretary, Dr. A. E. Baldwin, Illinois.

Section on State Medicine.—Chairman, Dr. J. S. Rauch, Illinois; Secretary, Dr. F. E. Daniel, Texas.

Committee on Necrology.—Dr. J. M. Toner, of Washington, D.C., Chairman; C. H. Franklin, Alabama; D. A. Linthicum, Arkansas; C. H. Denison, Colorado; William F. Lancaster, Florida; J. T. Hibbard, Indiana; William Watson, Iowa; Charles Oterman, Kansas; D. S. Reynolds, Kentucky; E. S. Lewis, Louisiana; T. A. Foster, Maine; H. O. Marcy, Massachusetts; W. Brinton, Maryland; W. F. Breakey, Michigan; G. F. French, Minnesota; B. F. Ward, Mississippi; J. M. Scott, Missouri; E. W. Jones, New Hampshire; Stephen Wickes, New Jersey; J. Lewis Smith, New York; Thomas F. Wood, North Carolina; F. G. Fuller, Nebraska; Q. Chapman, Ohio; I. M. Hays, Pennsylvania; W. E. Anthony, Rhode Island; Thomas Legare, South Carolina; J. L. Sim, Tennessee; Joseph Sears, Texas; C. F. Chandler, Vermont; L. B. Edwards, Virginia; W. F. Howells, West Virginia; J. K. Bartlett, Wisconsin; W. R. Forward, United States Army; H. W. Austin, United States Marine Hospital Service; N. L. Bates, United States Navy; J. J. McAhran, Wyoming; W. E. Duncan, Dakota.

Judicial Council.—Drs. R. A. Kinloch, South Carolina; D. D. Sanders, Tennessee; T. G. Richardson, Louisiana; D. A. Ketchum, Alabama; G. Baird, West Virginia; J. M. Toner, Washington, D.C.; A. M. Pollock, Pittsburg, Pennsylvania.

St. Louis was recommended as the place of meeting, and the time for the assembling of the next annual session, the first Tuesday in May, 1886.

On motion, the report was adopted, and the candidates elected for the respective offices named.

A supplemental report was promised for the succeeding day.

Dr. Brodie tendered his resignation as a member of the Judicial Council, which was accepted.

Fourth Day's Proceedings.—The Vice-President occupied the chair in the absence of the President.

The Secretary read the names of the

ADDITITIONAL MEMBERS OF THE COMMITTEE ON ARRANGEMENTS FOR INTERNATIONAL CONGRESS.

Arkansas, D. A. Linthicum; Alabama, G. A. Ketchum; California, R. B. Cole; Connecticut, —— ——; Delaware, L. P. Bush; Georgia, R. Battey; Kansas, D. W. Stormont; Louisiana, J. W. Dupree; Massachusetts, A. H. Wilson; Michigan, A. R. Smart; Mississippi, J. M. Taylor; New Jersey, W. Pierson; New Hampshire, J. W. Parsons; North Carolina, —— ——; Pennsylvania, J. V. Shoemaker; South Carolina, R. A. Kinloch; Texas, J. W. McLaughlin; Virginia, W. C. Dabney; Wisconsin, N. Senn; Colorado, C. Denison; District of Columbia, A. Y. P. Garnett; Florida, R. S. Murray; Illinois, E. P. Cook; Indiana, F. W. Beard; Iowa, W. Watson; Kentucky, W. H. Wathen; Maine, S. C. Gordon; Maryland, J. S. Lynch; Minnesota, E. French; Missouri, N. F. Essex; New York, E. Eliot; Nebraska, R. C. Moore; Ohio, X. C. Scott; Rhode Island, W. E. Anthony; Tennessee, F. A. Sim; Vermont, C. L. Allen; West Virginia, G. Baird; United States Army, Surgeon-General Murray; United States Navy, Surgeon-General Gunnell; United States Marine Hospital Service, Surgeon-General J. B. Hamilton.

The committee met and organized during the morning by the election of a chairman and secretary, in accordance with a resolution offered by Dr. Quinby, of Jersey City, which also empowered it to fill all its own vacancies and to make all necessary arrangements for the International Congress, and to appoint the officers of the Congress.

The Committee on Nominations presented their final report, as follows:

New Trustees of the Journal of the American Medical Association.—E. M. Moore, M.D., New York; J. H. Hollister, M.D., Illinois; J. M. Toner, M.D., District of Columbia.

Committee of Arrangements.—Chairman, Le Grand Atwood, M.D., St. Louis.

Assistant Secretary.— Wm. C. Glasgow, M.D., St. Louis.

Judicial Council (to fill vacancy caused by resignation of Dr. William Brodie).—J. K. Bartlett, M.D., Wisconsin.

The report was adopted.

PRIZES FOR CONTRIBUTIONS.

On motion of Dr. Reed, a resolution was adopted appointing a special committee of three to devise a plan for awarding honors, in accordance with the previous motion, for papers read before the different sections at the next meeting of the Association.

The resolution of Dr. Roberts, submitted yesterday by the section on State Medicine, etc., was taken up and adopted, recommending that steps be taken to establish in each State Boards of Examiners of Medical Licenses, whose certificates shall be the only authority to practise medicine in those States.

COMMITTEE ON CREMATION.

A resolution by Dr. Kinloch that, in the near future, if not now, cremation will become a sanitary need in the cities, was referred to a special committee, to report at next meeting.

Dr. J. A. White, of Richmond, Virginia, chairman of the section on Ophthalmology, Otology, and Laryngology, delivered an address, in which he reviewed recent progress in these branches. He devoted considerable space to a statement of the great value of cocaine in operating upon the eyes, nose, and throat.

Dr. J. H. Pope, of Texas, chairman of the section on Diseases of Children, made a verbal communication giving the substance of his paper, summing up the advances made in the treatment of diseases of children.

No report was received from the chairman of the section on Oral and Dental Surgery, Dr. W. A. Allport, of Illinois, who was absent. The chairman was authorized to send his report to the Publication Committee.

The Special Committee upon the President's Address presented a report recommending the organization of a section on Forensic Medicine. By resolution, action was deferred upon it until next meeting, it being in the nature of an amendment.

A resolution was offered forbidding members of the Nominating Committee from placing themselves as candidates for office, by Dr. Cochran, of Mobile; but, after some remarks by Dr. N. S. Davis, it was withdrawn.

Dr. Morris H. Henry, of New York, was appointed a delegate to the British Medical Association.

A resolution was passed thanking the Committee on Arrangements, medical profession of New Orleans, the clergy, Dr. and Mrs. T. G. Richardson, Mr. and Mrs. Cartwright Eustis, New Louisiana Jockey Club, and the citizens of New Orleans, for their hospitalities.

Dr. William Brodie, of Michigan, the President-elect, was escorted to the chair by ex-Presidents Drs. Toner and T. G. Richardson. In taking the chair Dr. Brodie made some appropriate remarks, thanking the Association for the honor conferred upon him.

Dr. Davis, preliminary to moving an adjournment, spoke of the great good accomplished by the annual meetings in fraternizing and consolidating the medical profession. He expressed the warm thanks of the Asso-

ciation for their pleasant reception in the Crescent City.

The meeting then adjourned.

[The analysis of papers and discussions before the several sections will appear in the next issue of the TIMES.—ED.]

THE AMERICAN SURGICAL ASSOCIATION.

(Continued from page 598.)

SECOND Day.—Dr. J. Collins Warren, of Boston, read a paper embodying the results of a number of experimental studies upon

THE HEALING OF ARTERIES IN MAN AND ANIMALS AFTER LIGATURE.

The object of this paper was to study the various pathological changes which occur in and around the vessel from the time the ligature has been applied until the process of cicatrization has fully completed itself. These processes are not unlike those occurring in a long bone after fracture. There is in both an external and an internal callus, the former having only a provisional existence in the case of arteries, and subsequently giving place to ligamentous union of the divided fragments; the latter undergoing such changes in the later stages of the process that the canal or lumen of the vessel is imperfectly re-established by the so-called canalization of the thrombus.

In the mean time the walls of the vessel have undergone certain changes which enable them to participate in the final process of repair. The ligatured artery is invested by a protective layer of new tissue formed from the periadventitial tissue, which, if well developed, gives great security against hemorrhage until the permanent cicatrix has grown sufficiently strong. This may be likened to the provisional callus of bone. There is also an internal growth or callus formed from several sources,—namely, the intima to a slight extent, the media more largely, also from cells finding their way from the periadventitia at a late stage through the retracted ends of the vessel. The thrombus is a mere passive structure, takes no part in the growth, but is protective, and affords an excellent medium for the new tissue to germinate in. When the provisional part of the internal callus has disappeared, we find remaining a cicatrix closely resembling the three coats of the artery, and affording by virtue of its peculiar structures an equally effective resistance to the pressure of the blood-column. The ligament which unites the two ends of the vessel represents in part the residue of the external callus, but also a portion of the walls of the vessel which have been absorbed during the inflammatory process. A vessel successfully ligatured in its continuity cannot, therefore, be said to have been "ulcerated" into two separate portions, but must be conceived of as a hollow tube which has solidified into a solid columnar mass of tissue, a considerable portion of which subsequently shrinks into a cord.

Dr. N. Senn, in opening the discussion, called attention to the facts that in these experiments not the minimum amount of damage had been done to the vessel in applying the ligature; they were not done under antiseptic precautions to prevent the entrance of external agents into the wound from the atmosphere. It is evident that the healing of arteries after ligation is due to connective tissue and its allies the epithelial cell and its congeners. To bring about closure of the vessel it is only necessary to bring its walls in contact; the use of greater force is accompanied by the infliction of greater amount of injury than is necessary, and only increases the danger of suppuration. The ligature is not applied in order to divide the middle or internal tunic, but merely to bring the walls in contact with each other, when the vessel closed by primary union or by granulation. When a permanent ligature is applied, it is either absorbed or leads to necrosis of the vessel. The ideal ligature is one which would merely keep the walls of the vessel together until its lumen is obliterated, and then be absorbed or removed.

The comparison to a fractured bone he regarded as a very happy one, which led him to remark that the best treatment after fracture of a bone is where we obtain a minimum amount of callus; and in applying a ligature we should aim to get a minimum amount of exudation. This he believed could be done by the application of a temporary ligature under strict antiseptic precautions. He referred to his former experiments with a double ligature, in which this result was attained. When a permanent ligature is used it is necessary to produce complete division of the tunics, thus increasing the danger of secondary hemorrhage.

He could not accept the views of the lecturer as to the participation of muscular fibres in the process of repair; he thought, on the contrary, that upon cessation of the function of the artery its muscular tissue would undergo fatty degeneration and atrophy. He believed that the occurrence of aneurism is only prevented by the development of connective tissue strong enough to resist the intra-arterial tension.

Dr. Gunn thanked the lecturer for the light shed upon the process of repair in arteries after ligation. For twenty-five years he had been revolving in his mind a method of tying the innominate artery, which he had had no opportunity of putting into execution. After exposing the vessel, he would place a strong silver wire loosely around it and fasten it. He then would introduce the forceps and flatten the loop from side to side, so as to bring the walls of the artery in contact and obliterate

its lumen. After hearing Dr. Senn's paper last year on the use of double ligatures, he believed that this would be an admirable way of tying the innominata.

Dr. Warren said that he would agree with what had been said, that the amount of thrombus and inflammatory products thrown out is in direct proportion to the amount of traumatism, but he doubted, even with antiseptic precautions, that one could get entirely rid of the external callus. In Lister's description of the organization of the clot after ligature of the vessels he alludes to the ring of new tissue supplying the place of the catgut ligature after it had been absorbed. Dr. Senn referred to primary union. In the speaker's first experiments he met some cases in which he thought that this had occurred, but careful microscopic study had shown that invasion of granulation-tissue had taken place from without.

With regard to the question of the closure of the vessel without injury to the intima, he quoted Cohnheim's experiments showing that as long as the internal tunic remains healthy the blood remains fluid, but as soon as it is injured a thrombus begins to form. In the Warren Anatomical Museum there is a specimen of a ligatured carotid artery in which no obliteration had taken place, the intima being uninjured; but the media and adventitia were softened by the invasion into their substance of new cells from the outside, which had not yet penetrated the uninjured intima. Under such circumstances aneurism or secondary hemorrhage might occur.

Referring to temporary ligatures and the use of catgut, he said that surgeons use silk and cotton thread, and cut them short, and do not expect to see them again; they become absorbed and disintegrated by wandering cells, and are therefore in the same class as the former.

With regard to the part played in healing of arteries by the muscular fibres, he said that these are not the striped muscular fibres, but the unstriped, which are closely allied to connective tissue. He cited the structure of granulation-tissue, in which new vessels are formed with muscular walls, and also referred to the immense development of new fibres in the uterine walls during gestation.

The question raised by Dr. Gunn as to the application of ligatures to large vessels is a very important one. The use of animal ligatures has been urged. The author of the article in Holmes's Surgery especially recommended the antisepticized ox-aorta ligature.

In reply to a question from Dr. Prewitt, he said that the clot is of great value where the vessel is large, because it protects the vessel from pressure during the first stage of healing.

In reply to a query raised by Dr. Moore as to the asserted conversion of catgut ligature into human tissue by Lister, he said that in the transactions of an English society he had seen a colored illustration in which this process was supposed to be going on, whereas it was as he had just described, and would serve as a very good frontispiece for the paper he had just read.

Dr. J. W. S. Gouley, of New York, read a paper entitled

SOME POINTS IN THE SURGERY OF HYPERTROPHIED PROSTATE.

After referring to the frequency of this condition, thirty per cent. of men over fifty years of age being subjects of it, according to Lessey's statistics, which he thought understated rather than overstated the facts, he also mentioned the elaborate studies of Mercier into the pathology of the prostate gland. The paper was divided into three parts: (1) the physical exploration, (2) medicinal treatment, and (3) surgical treatment.

He insisted upon the importance of physical exploration, especially by the conjoined method with a forefinger in the rectum and Mercier's short-beaked instrument in the bladder, or with a modification made by the author which permitted measuring the size of tumors of the bladder as well as enlarged prostate, and which he had named the "cystopylometer."

He had a poor opinion of medicinal agents in enlarged prostate, except as palliatives. Of the surgical methods he preferred Mercier's plan of tunnelling through the enlarged middle lobe of the gland, and exhibited the instruments devised for the purpose. Prostatectomy was merely mentioned. In regard to catheters he advocated a large size, soft, flexible, velvet-eye catheter, and exhibited a number of those which he considered unsuited. Intra-vesical injections are often of service to reduce attending cystitis. He gave the preference to nitrate of silver (gr. j to ℥j), and also to irrigation of the bladder with a large quantity of warm water. He had used cocaine solution when there was much pain. Where the bladder is contracted and micturition frequent, he advised training the patient to retain his urine, gradually increasing the interval, so as to stretch the bladder and increase its capacity. He suggested caution in emptying an over-distended bladder and in removing a large quantity of residual urine with the catheter, and advocated gradual evacuation by the removal of eight ounces of urine followed by the injection of four ounces of water containing boric acid; this to be repeated each day until the bladder can be emptied without danger of blood-poisoning, catheter-fever, and collapse.

To the operation of Mercier for the purpose of removal of portions of the prostate, he suggested that the name be applied of "internal prostatomy and prostatectomy."

In the discussion which followed the reading of this paper, Drs. Moore, Gunn, and

Prewitt approved generally of the views expressed by the lecturer. Dr. Gross exhibited an instrument devised by Reginald Harrison.

Dr. Gouley claimed, in conclusion, to be the first who had practised combined incision and excision of the prostate gland. He regretted that Harrison had not given him proper credit for it, although Mercier had acknowledged it.

At the beginning of the afternoon session, Dr. Ernst, of Boston, by special invitation gave a verbal report upon his studies with cultivation of disease-producing bacteria, explained the methods adopted, and exhibited specimens containing different micrococci. He insisted upon the importance of cultivation in order to bring into notice the individual distinctions, which are not always evident under the microscope.

Dr. Warren made some remarks upon the question of the connection between the appearance of germs in a wound and the course of inflammation. The method of Rosenbach makes the investigation easy. In a case of perinephritic abscess the pus, when cultivated in a pure culture, showed the Staphylococcus aureus. The patient died, and abscesses were found in the heart, liver, and lungs which also contained the same organism.

On motion of Dr. Gross, Dr. Ernst was requested to continue his investigations and present a report of the same at the next meeting of the Association.

An elaborate and extended series of papers, entitled

AN EXPERIMENTAL AND CLINICAL STUDY OF AIR-EMBOLISM,

were presented by N. Senn, M.D., but only read in part. The essay included sections on —1. The immediate cause of death by rapidly fatal embolism; 2. History of air-embolism; 3, Intravenous production of air; 4. Effect of the heart and respiration on the venous circulation; 5. Aspiration of air into the superior longitudinal sinus; 6. Experiments on same; 7. Practical suggestions concerning injuries of superior longitudinal sinus; 8. Immediate cause of death after intravenous insufflation of air; 9. Intra-arterial insufflation of air; 10. Clinical study of air-embolism, illustrated by cases; 11. Experiments on intravenous and intra-arterial insufflation of air; 12. Remarks on experiments; 13. Prophylactic and therapeutic recommendations.

Dr. Senn declared that air-embolism occurred as the rule where there had been previously a large loss of blood; that under ordinary circumstances the veins do not exert any aspiratory force whatever, except when their walls are held apart by tension of surrounding structures, or made permanently patulous by deposits in their walls. The entrance of air is favored by gravitation. In operating upon the longitudinal sinus no air entered while the animal was horizontal, but when the head was lifted the air entered with a lapping sound. Ligation of the longitudinal sinus is easily done, provided a sufficiently large opening be made for the manipulations required. In operations for removal of tumors, where there is a probability that this sinus will be opened he advocated its preliminary ligation as a routine practice. When the sinus is opened laterally and it is not convenient to apply a ligature, he recommended the introduction of a small piece of aseptic sponge. He had found the sponge becomes organized as in sponge-grafting elsewhere.

When death occurs from air-embolism, it is due not so much to plugging of the pulmonary capillaries as it is to anæmia of the brain and centres of respiration, as a result of cardiac paralysis from over-distention of the right side of the heart. A small amount of air can enter the circulation without any bad consequences being noticed. When a large amount of air enters and the heart stops from over-distention, he found that by aspiration of the right ventricle the air could be withdrawn and the heart resume its movements.

The discussion upon this valuable communication was postponed until the next day.

Third Day.—Dr. Warren complimented the author of the paper upon its comprehensive character, and agreed with his explanation of the cause of death being cerebral anæmia after air-embolism. This has been compared with fat-embolism, and it is known that in some cases fat-embolism may occur to a considerable extent without any symptoms whatever being produced. The observation is very interesting that an amount of air large enough to kill an animal if thrown in at one time may be given in divided amounts at short intervals without serious results, because in this way over-distention of the heart is not produced, although air-embolism must occur in the lungs and brain. With regard to the question of aspiratory force by the veins, he did not agree to its non-existence. It is likely to occur when there is much tension upon the vein, or when a large trunk or sinus is opened. He called attention to a source of mistake: in removing growths from the axillary space the respiratory movements of the thorax sometimes cause the air to rush into the axilla with a sucking noise, as if the axillary vein had been cut. He mentioned several cases of sudden death in Boston from entrance of air into the uterine sinuses during attempts at abortion.

Dr. Gordon, of Portland, Maine, by invitation reported a case of sudden death during attempted aspiration of a pelvic abscess. The cavity had been aspirated previously with no bad results. On this occasion the assistant reversed the aspirator undesignedly, and filled the receiver instead of exhausting it. When the needle was introduced as before, the young man turned the stop-cock, when immediately the patient screamed, placed her hand upon her heart, and died. It was sup-

posed that the air had entered one of the veins in the wall of the abscess. No autopsy was obtained, but he had no doubt that death was caused by air-embolism.

Dr. Nancrede referred to the fact that although Beauchesne, in 1818, had first recorded a fatal case of air-embolism during the removal of a cervical tumor, yet the elder Larrey is said to have frequently noticed this as a cause of death upon the field of battle in wounds of the neck. As regards the suggestions for treatment, he need hardly remind the Fellows that these results of experiments on animals are not conclusive as applied to human subjects. For instance, the calibre of the pulmonary capillaries is said to be much larger in the horse than in man and other animals, thus allowing freer passage of the frothy blood, which accounts for the fact that a much larger relative amount of air in the veins is required to kill horses than other animals. The cause of death in air-embolism is a complex one, but it ultimately results from arterial anæmia of the respiratory and cardiac centres, due to the lung-capillaries refusing passage to the bloody spume, and also to the fact that this frothy blood has not sufficient density to close the heart-valves. A singular observation bearing upon the former point is that an equal amount of water thrown into the circulation is said to produce symptoms identical with those of air. This can only be explained by the physiological fact that the capillary circulation is best carried on by a fluid of the same density as that of blood, and that its dilution interferes with its free passage through the vessels. This, together with the large size of the horse's capillaries, gives us a therapeutical hint presently to be enlarged upon. The position necessitated by the neck and arm in operations in those regions often temporarily canalizes the veins. The speaker then enlarged upon the conditions producing temporary canalization of veins, which had not yet been referred to by previous speakers. He did not agree with Dr. Senn that all cases were preceded by great loss of blood, and related a case of his own, of amputation at the shoulder-joint, where death had suddenly resulted from the entrance of the gaseous products of putrefaction, the result of sloughing in the wounds. Preventive measures are most available, as we can rarely be provided with an aspirator, even if inclined to puncture the heart, as the speaker was not. Complete anæsthesia, to prevent sudden inspiration, should be secured, or the chest enveloped in a binder where anæsthetic agents were not used. He always avoided incisions when the parts were on a stretch, in "the dangerous region," unless a finger was placed on the cardiac side of the wound, or the pedicle was clamped by some device like dressing-forceps.

Ligaturing, before cutting the deep attachments of a cervical or axillary tumor, was advised when they could not be twisted off. As to curative measures, he would recommend the surgeon to secure the vein at once, or, still quicker, fill the wound with water by a squeeze of the sponge, as suggested by Mr. Treves. As death results from syncope, lower the head, also divert the blood from the limbs to the brain by compressing the axillary and femoral arteries, and give cardiac stimulants to enable that organ to drive the blood through the obstructed lung-capillaries. Use atropia hypodermically to render the pulmonary capillaries as like to those of the horse as possible, by fully dilating them. First and last, keep up artificial respiration, which, as has been experimentally shown, can rid the blood of a considerable amount of air.

Dr. P. S. Conner read a paper on the

ETIOLOGY OF TETANUS,

in which, after reviewing the current views of pathology of this disease, and approving the distinction made by Collis between partial and general tetanus,—the latter only being regarded as true tetanus,—he suggested that the history pointed to a toxic agent existing in the wound, which was either of the nature of a chemical substance (a ptomaine, in fact) or bacterial. He discarded the idea of reflex irritation, and called attention to the fact that tetanus is most likely to follow injuries of nerves of greatest sensibility, which are known to be most liberally supplied with lymphatic vessels.

During the discussion, which was participated in by Drs. Moore, Nancrede, Prewitt, Mears, Tiffany, Prince, Watson, and Briggs, the great prevalence of tetanus from the toy-pistol was alluded to. It was thought to be due possibly to the chemical action of the fulminating powder, but Dr. Conner was of the opinion that it was principally due to the amount of laceration of the tissues caused by the disintegration of the charge.

Dr. Moses Gunn, in the absence of the author, read the paper of Dr. C. T. Parkes, of Chicago, on

A CASE OF CHOLECYSTOTOMY.

The patient was a woman 29 years of age, married, who had suffered for two years with frequent paroxysms of agonizing pain, accompanied by nausea and vomiting, and used large quantities of morphine. The symptoms pointed to occlusion of the common duct and distention of the gall-bladder. Cholecystotomy was performed, a quantity of mucoid bile-stained fluid was evacuated, but no stones discharged. The walls of the cyst were stitched to the wound, which had been made over the tumor. During the next few days a number of small calculi were found in the discharge from the wound. No high temperature, no vomiting or other disturbance, followed the

operation, which gave the greatest relief to the patient. As there was no appearance of bile in the stools, a second operation was performed four weeks later, in which the wound was enlarged and steel sounds introduced into the common duct, dilating it gradually. The fistula was then closed, and the patient recovered. Bile reappeared in the stools. The enlargement of the liver had rapidly subsided after the first operation. It was supposed that the stones had formed in the bile-ducts and were washed out by the flow of bile after the pressure was removed.

Dr. Mears recommended early operation. Operative procedures are called for (1) in cases of inflammatory conditions causing complete obstruction of the common duct; (2) where tumors press upon the duct, causing obstruction; (3) in malignant diseases of surrounding structures; (4) a condition of suppuration of the cyst requiring prompt evacuation; (5) the pressure of impacted gall-stones. The question of operation is affected by the diagnosis. Exploratory laparotomy has been urged in all cases, but this is an operation which should not be lightly undertaken. The point of operation is one of interest. The external incision may be made in the median line of the abdomen and directly over the growth. He preferred the latter, so as to favor the stitching of the cyst-wall to the wound and secure drainage, or permit of entire removal of the bladder if found advisable. He thought an opening rather lower down would be preferable to one immediately over the tumor.

Dr. Prewitt reported a case illustrating difficulty of diagnosis from the history. A man 70 years of age, who never had been sick previously, was taken with biliary colic and died in a state of collapse. The gall-bladder was found to be full of stones, which had given no symptoms during a long life. Death was caused by ulceration and peritonitis. He also spoke of mucoid distention of the gall-bladder, which may give all the symptoms of gall-stones and yet no stone be found. The diagnosis is often obscure. He cited a case in which a large gall-stone ulcerated through into the jejunum, and finally caused death by obstruction of the lower part of the ileum.

Dr. J. Ewing Mears read a paper on

PHOSPHOR-NECROSIS: ITS CAUSES, TREATMENT, AND PREVENTION, WITH REPORTS OF CASES.

After giving the clinical records of six cases of phosphor-necrosis of the jaw-bones, out of sixteen which had come under his care, the lecturer passed around specimens of bone removed, with photographs of the cases.

He then reviewed the literature of the subject, the clinical features of the disease, and the means to be adopted among the workers in match-factories for its prevention. The following are his conclusions:

1. That phosphor-necrosis of the jaws is the local expression of a constitutional condition produced by the inhalation of the vapor of phosphorus and by particles of the agent taken into the system with the food by operatives in match-factories who do not give proper attention to cleanliness of the hands.

2. That the introduction of the agent into the system is, as a rule, very gradual, and in such small quantities as to avoid the production of the symptoms of acute poisoning; that in this way a chronic toxic condition of the system is induced, characterized chiefly by disintegration of the red blood-corpuscles and fatty degeneration of the arterial coats.

3. That this toxic condition precedes the development of necrosis is shown by the fact that the disease does not attack operatives recently exposed to the action of the agent, but those who have been exposed for a period of years; also shown by the case reported in this paper in which the disease did not manifest itself until three months after discharge from the factory.

4. That examinations of the teeth of operatives have shown that many who have a condition of caries and that many who have returned to work immediately after the extraction of teeth have enjoyed immunity from the disease, showing that the agent has not attacked the periosteal tissues thus exposed.

5. That individuals vary in their susceptibility to the action of the poison, for this reason: many suffer immediately with symptoms of acute toxic condition, such as nausea, vomiting, etc., and are compelled to abandon work in the factories.

6. That the conditions under which the experiments were made on animals proving the absence of the disease until exposure of the periosteum and peri-alveolar tissues was effected were not similar to those to which operatives in match-factories are subjected.

7. That treatment of the disease in the primary stage in the manner outlined above is efficient in preventing its progress.

8. That the antidotal powers of turpentine have been established, both in neutralizing the effects of the poison upon operatives during their work and also in the treatment of the early stages of the disease.

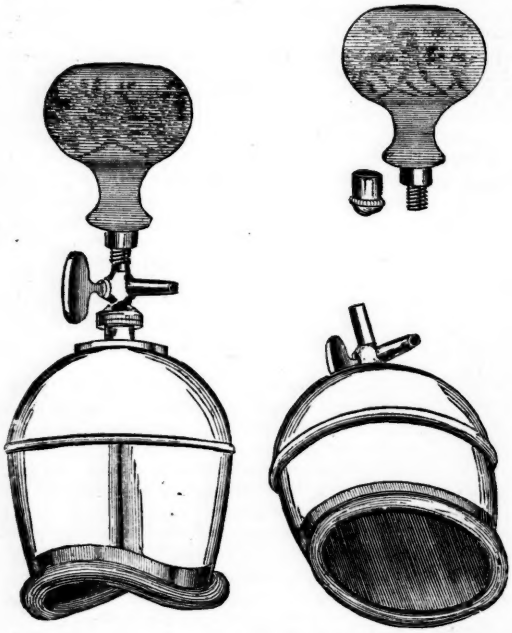
9. That the disease is to be prevented among operatives by the adoption of thorough methods of ventilation, stringent rules with regard to cleanliness, and the free disengagement of the vapor of turpentine in all of the departments of factories in which the fumes of phosphorus escape.

The paper was discussed by Drs. Moore and Nancrede.

NEW ETHER-INHALATION APPARATUS.

Dr. Mears also exhibited an apparatus for ether-inhalation made of metal, nickel-plated, dome-shaped, fitted to cover the mouth and nose, having at its upper portion a tube, closed

by a stop-cock, and communicating on the inside with a sponge. It was designed for continuous inhalation, the ether-reservoir being placed upon the upper portion of the tube, the ether to be admitted to the sponge



by turning the stop-cock. The advantages claimed were continuous supply of ether-vapor, cleanliness, and simplicity. By attaching one end of a rubber tube to the reservoir (which is placed in hot water) and the other end to the inhaler, the instrument could be used for rapid etherization, as shown by Dr. Mears when exhibiting the apparatus.

MEDICAL SOCIETY OF THE COUNTY OF NEW YORK.

A STATED meeting was held April 27, 1885, the President, DANIEL LEWIS, M.D., in the chair.

THE EFFECT OF SEA-VOYAGING UPON THE GENITO-URINE FUNCTIONS.

Dr. J. A. IRWIN read the scientific paper of the evening, with this title. Notwithstanding the importance of the subject, which was evident from the fact that serious disturbances of the genito-uterine function were liable to take place during a sea-voyage, and the great amount of transatlantic travel at present, very little was to be found in medical literature concerning it. The observations recorded in the paper were made during the author's service as ship-surgeon on the transatlantic steamers in 1879, 1881, and 1882, and also while he was acting in the same capacity on vessels destined to India and Australia.

During this service Dr. Irwin had records of one hundred and four pregnancies, eleven parturitions, three miscarriages, and four hundred and fifty-one observations upon menstruation, including many missed periods among women who were usually regular on land.

The author first took up the subject of the effect of a sea-voyage upon the menstrual function. Of the four hundred and fifty-one observations upon the menstrual periods of women while at sea, two hundred and eighty-eight were made under his instructions by a stewardess, and were replies received to formal questions, and he thought could be relied upon as accurate. All of the two hundred and eighty-eight women were supposed to be non-pregnant. Menstruation was normal previous to the voyage in all. Twenty-one of them passed the period while on board the vessel without menstruating, forty-three menstruated before the proper period, two hundred and twenty-four menstruated at the proper period, twenty-three complained of pain, and in a few instances there was increased flow, while two hundred and one of the women noticed absolutely nothing unusual which could be attributed to the voyage. Of Dr. Irwin's own one hundred and sixty-three observations among women of a higher social standing, thirteen passed the period on board without menstruating (of whom eleven experienced more or less molimen), fifty-one menstruated before the period, and ninety-nine at the period. Of these, forty-seven complained of unusual discomfort, accompanied in thirty-seven cases with increased and prolonged flow, and in two with diminished discharge. Of the thirteen who passed the period, three were still on board at the following period. One of the three then menstruated almost normally, in one the result was not known, and in the other the flow was increased in quantity and prolonged in duration, but she subsequently experienced complete amenorrhœa during two periods.

From these figures it would be seen that disturbance of the menstrual function at sea was of frequent occurrence. As to the explanation, it offered a question difficult to solve, and the more so because of the indefinite and conflicting views regarding the real nature of the menstrual function. Whatever might be the view entertained regarding the nature of menstruation, Dr. Irwin thought it

was evident there was during a sea-voyage a tendency to increased pelvic congestion, which would offer an explanation for the phenomena usually observed regarding the menstrual function.

As to the special conditions in an ocean-voyage which might be supposed to exercise an influence upon the female habit, they might be classed under three heads,—namely, physical influences, dependent upon the novelty of the situation and the apprehension of danger; second, aerial, consisting in some special quality of sea-atmosphere; and, third, motional, as a direct result of the movement of the vessel.

There could be no question that strong emotional impressions had some influence upon the menstrual function, but this influence was less marked than some believed in the class of cases under consideration. That physical influences did play some part in the disturbances of menstruation was quite probable in cases of sudden arrest of the flow in women who embarked during a period. But many women who suffered most severely during the sea-voyage had not the slightest fear, and would thoroughly enjoy sea-life but for its unpleasant effects on the menstrual function.

However acquired, sea-air possessed peculiar hygienic potency which had caused it to assume a most distinguished rank among the medicinal remedies of antiquity; but it was clear, however, that the chief influence brought to bear during an ocean-voyage upon the established habits of the economy arose from the motion of the vessel. Dr. Irwin then referred to his explanation of sea-sickness, described in a paper published by him in 1881, and which had come to be the generally accepted view of the cause of sea-sickness, or, more properly speaking, of motion-sickness. His view was that it was a form of Ménière's disease, consisting in a disturbance of equilibration, the initial lesion being situated in the semicircular canal. Whatever might be the direct cause, Dr. Irwin thought there could be no doubt that during a sea-voyage there was an increased blood-supply to pelvic organs, which might vary in degree from a slightly increased amount to a positive engorgement of the organs. That the sympathetic system was sometimes affected was unmistakable from the symptoms observed. The frequent dysmenorrhœa and the usual intensification of the symptoms of local pelvic disease were results which we would expect *a priori* from a hyperæmia of the pelvic organs.

It would be seen that a sea-voyage might disturb the menstrual habit in every conceivable form,—in its periodicity, duration, amount of excretion, and discomfort. The particular effect most likely to occur would be determined by the constitutional habit of the individual, the relation of the last flow to the date of embarkation, and the length of the voyage and fortuitous conditions. With regard to periodicity, the most constant change was a premature return of the flow, and this return might take place at any time during the intra-menstrual epoch. If a woman go on a voyage shortly after the cessation of the flow, there would be liability to a renewal of the discharge or of the peculiar symptoms attending a period, and it might lead to suppressed menstruation at the next time it should come on.

Complete and passive amenorrhœa for one or more periods after a sea-voyage was a frequent result of the transatlantic voyage.

Of the effects of a sea-voyage upon menstruation, none was more constant or unfortunate than an aggravation of whatever discomfort was ordinarily associated with menstruation. In some women painful menstruation was experienced for the first time at sea; and it might be accepted as almost universally true that in every type of dysmenorrhœa the discomfort was increased, certainly at the first, and usually at subsequent periods, at sea. If there were any exceptions to this rule, they would be found in certain neurotic states. Dr. Irwin then offered some possible explanations of the aggravation of dysmenorrhœa during a voyage, reasoning from the theoretical explanations which had been offered regarding the menstrual process.

Puberty was sometimes hastened by a voyage at sea, and the flow sometimes recurred at the climacteric period. The aphrodisiac influence of a sea-voyage was generally recognized, and would be expected to occur under conditions which increased the pelvic blood-supply.

An ocean-voyage should be regarded as a potent emmenagogue, having in addition to the special quality a well-marked tonic, alterative, and sedative influence. But it should no longer be prescribed empirically, but with a definite object in view. There were many cases in which its local as well as its constitutional influences would be indicated,—for instance, in certain conditions of chloranæmia, amenorrhœa with pain, and retarded sexual maturity, certain forms of leucorrhœa and uterine hysteria, and lack of development in school-girls, a typical case of which had been described by Dr. Emmet.

It would of course be understood that upon the large majority of women who crossed the ocean the sea-influence was too slight and too transient to be considered of serious import. There were, however, many conditions of the uterine organs which, if not positively interdicting a sea-voyage, did demand special prophylaxis and skilful attention on board. Dr. Irwin was inclined to think that almost every form of uterine and ovarian disease became worse while at sea, and he did not think that the possible reactionary beneficial results would justify one in sending such

women to sea. Uterine displacements were especially liable to give trouble.

The treatment of uterine troubles during ocean-transit should be conducted upon general principles.

The influence of sea-voyaging upon utero-gestation was a subject which was of the greatest importance. The influence of sea-sickness and the mechanical disturbance of the viscera, and especially of prolonged and violent vomiting, was to cause premature labor and miscarriage. The vomiting of kinetia was not to be compared with that of morning-sickness in its effects upon pregnancy. It was more violent and more liable to cause miscarriage. It was the author's opinion that pregnancy, especially during the latter months, predisposed to and aggravated the most distressing features of sea-sickness.

It had also been noticed that ocean-voyages perverted or suspended lactation.

DISCUSSION.

Dr. C. C. LEE. Mr. President and gentlemen: I had not the advantage of hearing the earlier part of Dr. Irwin's paper, but I am somewhat familiar with his views, partly through his kindness in allowing me to know the general line of thought he was about to adopt. Although my own experience of sea-life as affecting patients, particularly patients suffering from uterine disorders, has been limited in comparison with the author's, I have the highest pleasure in concurring in the main with everything I have known Dr. Irwin to advance. In the first place, as to congestive conditions, I have never known an exception to the general rule that when women are sick at sea for the first time, or are liable to be very sea-sick, the constant straining of the vomiting or the general derangement of innervation—which, according to Dr. Irwin's views, is the underlying and essential cause of sea-sickness—causes increased pelvic congestion and increased tendency to metrorrhagia or menorrhagic flow. I have seen on several occasions, and I could recall at this moment as many as four or five pregnant women, patients of my own, upon European voyages, and I have not known a miscarriage to follow. These patients were all at different stages of utero-gestation.

I have never had any experience in the effect of sea-sickness upon amenorrhœic women as to its tending to bring on the flow, or as to its tendency to overcome amenorrhœa; nor have I, in my limited observation, ever seen persons suffering from chlorosis or amenorrhœa benefited in the slightest degree by a sea-voyage. I think, sir, we are all apt to be influenced by our own sensations of pleasure or discomfort during a sea-voyage regarding its effects upon others, and I may express my feelings as being emphatically those of discomfort during a voyage at sea, having made ten voyages across the Atlantic, and having been constantly sick, and seen every one around me completely sea-sick. Consequently, I cannot well believe that such a life during short transatlantic voyages can possibly exercise a beneficial influence upon the more delicate organization of chlorotic women. I can perfectly understand that long voyages—those around the Cape of Good Hope, or to China, or Australia—could be beneficial in other conditions of ill health, where there was pulmonary trouble or general nervous prostration, in which a change of climate and the change of sea-life had been indicated. But I know of no condition of chlorosis or of anæmia in women, or of conditions that lead to amenorrhœa, which would be likely to be benefited by a short sea-voyage, such as we are in the habit of recommending to our more wealthy class of patients, sending them from here to Europe in the hope of benefiting their health. I think, as a rule, physicians commit no greater mistake than in supposing (which is not unusual) that a sea-voyage will benefit almost everybody who wishes a change. When in my earlier practice I sent amenorrhœic patients or those suffering from uterine disorders on a sea-voyage, I was invariably disappointed in obtaining the benefits which I had expected. Amenorrhœic and chlorotic patients are too short a time at sea to become accustomed to the motion of the vessel and to overcome the tendency to sea-sickness. Patients suffering from displacement of the uterus, or habitual congestion of the pelvic organs, or constant metrorrhagia, always, when in my earlier professional life, before I learned better, I sent them on a sea-voyage, disappointed my expectations and were made worse by the voyage. I judge this effect to be due to the prostration and exhaustion of the nervous system and the relaxation of the muscular system which is caused by excessive sea-sickness, rather than to the influence of the sea-air or change of habit and food or other conditions attending the voyage.

To sum up my experience in a few words, I would say that long sea-voyages may justly be expected to benefit that class of women who are either delicate, feeble in organization, or chlorotic; that long or short sea-voyages may alike be expected to prove injurious to persons of plethoric habit, or who, either from displacements of the uterus or previous conditions of perimetritis, or uterine tumors, or from habit, have been subject to metrorrhagia or menorrhagic flows.

I will not detain the Society longer, Mr. President, but will give place to those who are better able to discuss the paper.

Dr. B. F. DAWSON said his experience had been limited in the class of cases treated of in the paper. He had seen only one case of excessive menstrual flow at sea, but had seen three or four cases of amenorrhœa in women who usually menstruated normally and regu-

larly. In these cases sea-sickness could not have played any part in the production of the amenorrhœa, as the women experienced no trouble in that direction from the voyage. But emotional influences, the separation from their families, and fear of the ultimate result of the voyage, probably caused the absence of the flow.

Dr. JOHN DWYER had been physician on board a sailing-vessel about thirty years ago, and it was common for mothers to bring their young daughters to him because of absence of the flow. He was unable to give remedies which proved of benefit. He had observed the marked aphrodisiac influence of an ocean-voyage upon all classes of people.

Dr. A. M. JACOBUS had seen a number of cases of amenorrhœa following a sea-voyage, and believed it was not an uncommon occurrence for the menses to cease for a number of periods after a voyage across the ocean. He had obtained little benefit from treatment.

Drs. MCLAURY, BARUCH, LAURENCE JOHNSON, BRACKLOW, and BUTLER had also seen a number of cases of amenorrhœa following a sea-voyage. Dr. Butler referred to one case in which menstruation always took place normally while the patient was at the seaside, but dysmenorrhœa existed during her residence in the city.

Dr. IRWIN closed the discussion, and was glad to know that his experience was in general confirmed by that of other physicians present.

NEW YORK PATHOLOGICAL SOCIETY.

A STATED meeting was held April 8, 1885, JOHN A. WYETH, M.D., President, in the chair.

Dr. NORTHRUP, for a candidate, presented

CYSTIC KIDNEYS, WITH DILATED URETERS.

BAYBERRY TALLOW AS AN EMBEDDING MEDIUM.

Dr. W. M. CARPENTER called the attention of the members to a new method of embedding tissue preparatory to microscopical work. Various substances were in use, such as celluloidine, paraffine, etc., all of which had their advantages and their disadvantages. That used at the laboratory of the University Medical College by Dr. Miller and himself was bayberry tallow, a substance which was not soluble in alcohol at ordinary temperature, but was soluble in warm alcohol and in some other substances. The piece of tissue taken from alcohol was immersed in melted bayberry tallow and allowed to remain about fifteen minutes, by which time the tallow would have permeated the tissue completely. Dr. Miller's method was then to place the piece of tissue upon a piece of cork, where it remained until it became cool. It was then sealed fast to the piece of cork by more tallow or by paraffine, when it was ready for section. After the sections had been made, the bayberry tallow could be taken out of the tissue in either of two ways. First, by putting into warm—nearly boiling—alcohol, which readily dissolved it. It was then ready to go through the ordinary processes for permanent mounting. Benzol might be employed instead of alcohol, but care should be exercised in the use of either of these agents not to raise the temperature to a degree of combustibility. The advantages in the use of bayberry tallow were that the substance was very cheap; little time was consumed in preparing the specimen; it enabled the operator to make the sections with great precision; it could be removed thoroughly and easily from the tissues.

Dr. Carpenter then exhibited under the microscope a section of a bronchial tube prepared with bayberry tallow.

Dr. PRUDDEN thought the method described by Dr. Carpenter would prove of much practical value.

EXSECTION OF THE TIBIA.

Dr. WAGENHEIMER presented a part of the upper portion of the tibia of a child now three years of age, exsected for necrosis following an injury. When Dr. Wagenheimer was called to see the patient in consultation, he found two sinuses on the upper third of the anterior surface of the tibia, leading down to dead bone in different directions, and when he came to perform exsection the disease was found to be extensive, involving also the knee-joint. The wounds were dressed with iodoformized gauze, a drainage-tube introduced, and reproduction of the bone took place, leaving a leg capable of flexion to 45°, and of full extension. The degree of shortening was only half an inch.

NECROSIS OF THE FEMUR.

Dr. WAGENHEIMER also presented some small pieces of necrosed bone removed from the femur of a man at the situation of Hunter's canal. The patient recovered, with a useful limb.

Dr. VAN GIESON inquired whether in the latter case there was any hemorrhage.

Dr. WAGENHEIMER replied that there was not.

Dr. VAN GIESON said that in such cases hemorrhage was not infrequent, and it sometimes proved fatal. He had recently had a case similar to the one related by Dr. Wagenheimer, the patient having entered the hospital on account of hemorrhage, and examination showed that a spicula of bone had penetrated a large muscular branch. It was removed, the wound cleansed, and the patient recovered.

EXTRA-CAPSULAR FRACTURE OF THE HEAD OF THE FEMUR; THROMBOSIS OF THE LEFT MIDDLE CEREBRAL ARTERY.

Dr. L. E. HOLT presented a specimen of extra-capsular fracture of the femur taken from the body of a lady 73 years of age.

The patient had been perfectly well until she slipped, fell upon the floor, and was unable to rise. There was complete disability of the left lower limb, considerable swelling about the trochanter, and a great deal of tenderness. A satisfactory examination could not be made, but it was evident that there was some shortening, afterwards shown to be one inch. Four days after the accident the woman became unconscious. There was hemiplegia on the right side. The pupils were contracted equally. The patient remained comatose, and died seven days after the fall. At the autopsy he found thrombosis of the middle cerebral artery of the left side. All the cerebral arteries were markedly atheromatous, and there was atheroma of the aorta. The heart was fatty, the kidneys granular.

The specimen presented was interesting in two or three respects. First, the angle formed by the junction of the neck and head with the shaft of the femur approached less nearly a right angle than one would expect to find in a woman aged seventy-three years. The angle was about 120°. The fracture was extra-capsular, the line of the fracture following the usual direction. The lower portion was impacted more than the upper. The angle after fracture was 110°.

GUNSHOT-WOUND OF THE HEAD.

Dr. VAN GIESON presented bones of the cranium, the seat of gunshot-wound, removed from the body of a woman 39 years of age, who in the winter of 1884, during an attack of delirium due to typho-malarial fever, shot herself twice in the head, near the junction of the frontal with the parietal bone on the left side, the pistol being a thirty-two calibre. When admitted to the hospital, two wounds of the soft parts were found in the region mentioned, situated about an inch and a half apart. The probe introduced into the openings came down upon a bullet. Both tables were fractured, and the dura mater could be felt. Subsequently hernia cerebri formed, and about two months after receipt of the injury exfoliation of bone took place, which continued until September, 1884, when the wound entirely healed. From this time on the patient had frequent attacks of pain, starting from the point of injury and running to the back of the neck, but the pain was not sufficient to prevent her from doing work about the wards. She was sometimes "queer," and very stubborn, those being the only symptoms which seemed to be referable to the injury of the brain. Three weeks before death, acute rheumatism, with pericarditis, developed. Death took place in March, 1885.

At the autopsy the body was noticed to be well nourished. The meninges were thickened, congested, and new connective tissue was found at the gunshot-wound. There was adhesion of the brain to the dura mater, and of the dura mater to the skull. The brain around the gunshot-wound was in a state of yellow softening. At the junction of the left frontal and parietal bones was a round hole penetrating the skull, and near the upper inner margin of the hole were several pieces of lead, two of which were embedded in the bone. A negative point of interest in the case was the fact that, although the injury was near the centre of speech, there was no symptom of aphasia.

DRY GANGRENE OF THE FOOT FOLLOWING INJURY OF THE LEG.

Dr. VAN GIESON also presented the leg, amputated for gangrene of the foot following an injury. The patient was a man 29 years of age, a brewer, who, while at his work, sustained an injury by a barrel of about one hundred and eighty-five pounds' weight falling upon him, first striking his head, and then the lower third of the thigh. When he entered the hospital there was found contusion of the left eyebrow, loss of the incisor teeth, fracture of one rib on the right side, and dislocation of the thigh backward at the knee. The head of the tibia and the patella constituted a marked prominence anterior to the condyles of the femur. The quadriceps extensor femoris was very lax, and the tendon could be grasped and moved from side to side. The leg was shortened about one and a half inches. The foot turned inward. The dislocation was reduced by the house surgeon, who partially flexed the thigh, made extension upon the ankle, and after a little manipulation the bones assumed their normal relations. There had been interference with the circulation, and paralysis existed. It was evident from the movements which could be made after reduction that there had been considerable laceration of the ligaments. The treatment was by posterior and lateral splints, and ice-bags to the knee. But the circulation in the foot remained poor, and by March 22 there was dry gangrene of the foot and blackening of the tissues above the malleoli. The leg was then amputated at the knee. Injection of the arteries failed to reveal the exact location of the obstruction, but it probably existed in the anterior tibial artery. The propriety of amputating at the knee instead of just above the line of demarcation was considered. An abscess which was found in the popliteal space would have contra-indicated amputation at the lower point.

TUBERCULAR LARYNGITIS.

Dr. H. J. BOLDT presented the larynx removed from the body of a man 55 years of age, the seat of what appeared to be tubercular ulcers, but a microscopical examination would have to be made to settle this question definitely. There were tubercles in the lungs.

INTESTINAL INTUSSUSCEPTION.

Dr. J. LEWIS SMITH presented the intestines removed from the body of a child six months

old. The patient was artificially fed, and had for several weeks prior to its last illness suffered frequently from what was supposed to be intestinal colic due to abnormal adhesions. Eleven days ago it began to vomit, and to have more intense pain than previously. Dr. Smith saw the child the following morning, and again in the afternoon, when the nature of the disease was recognized as intussusception. There had been no movement of the bowels during the day, excepting the escape of a few drops of blood. An enema of tepid water washed away some fecal matter stained with blood. The attacks of pain occurred at short intervals. Dr. Smith remarked that the majority of cases of intussusception occurred in children aged between six and eleven months. The characteristic signs were present in this case,—namely, frequent vomiting, severe abdominal pain, constipation, and the discharge of pure blood per anum. Large clysters of tepid water were employed, the head dependent. No abdominal tumor could be felt. The distention of the gut with water was repeated several times on the second and third days of the disease, and on the third day laparotomy was proposed, but rejected by the parents. The next day, however, they changed their minds, and Dr. Sands saw the patient, prepared to do laparotomy. The abdomen was much distended from the accumulation of water below the obstruction and of fæces above, so that no distinct tumor could be made out; and as some fecal matter came away on the examiner's finger, Dr. Sands concluded not to operate. The child died rather suddenly twelve hours later. At the autopsy the invaginated portion of gut lay under the liver, the left extremity being in the median line, and deeply situated. As in most cases of intussusception, the lower portion of the ileum had entered the colon. It would seem that the injections of water had partially reduced the invagination, and it was not impossible that the more persistent employment of the treatment might have entirely relieved the condition. In several cases in which there existed symptoms of intussusception Dr. Smith had succeeded in curing the patients by this mode of treatment.

Dr. NORTHRUP remarked that he had often reduced the invaginated portion of gut frequently seen at autopsy by allowing a stream of water to enter the intestine through a rubber tube.

Dr. HOLT had recently read an article in one of the British medical journals, in which the author took the ground that if injections failed to reduce the intussusception by the second or third day they should be discontinued, as being liable to cause rupture, and laparotomy should be resorted to. Dr. Holt had observed at autopsy rupture of the gut produced by traction in reducing the invaginated portion.

The PRESIDENT would resort to laparotomy within twelve or twenty-four hours after the development of symptoms of intussusception, although the diagnosis were not very positive.

PHILADELPHIA COUNTY MEDICAL SOCIETY.

AT a meeting held February 25, 1885, Dr. R. J. Levis, President of the Society, in the chair, Dr. J. H. Musser read a paper entitled "A Report of Three Cases of Idiopathic Anæmia." (See page 601).

DISCUSSION ON ANÆMIA.

Dr. F. P. Henry said: I was glad to notice that Dr. Musser used the term idiopathic anæmia, instead of the term pernicious anæmia. This latter term, as well as the term progressive pernicious anæmia, is misleading, for, as Dr. Musser remarks, although the disease is frequently pernicious, yet it is not always so. Of late years recovery has frequently been recorded, especially under the use of arsenic, which was first employed in the treatment of this affection by Dr. Byrom Bramwell, in three cases, all of which recovered. The first case reported by Dr. Musser was marked by the predominance of nervous symptoms, especially towards the close of the case. The autopsy was very thoroughly made, but I notice that the brain was not examined. The eye-ground was examined and hemorrhages noted. Next to the retina, the most frequent seat of hemorrhage is the surface of the brain, and the inner layer of the dura mater or the parietal arachnoid, as it is called. Hemorrhages were also noted in other parts of the body, and it is fair to presume that there were petechial hemorrhages on the brain-surface. There was also noted the evidence of the existence of a suppurating gland which may have been strumous or syphilitic. There had been one miscarriage, I believe.

The second case greatly improved, or entirely recovered, under the use of a mercurial. Of course there is a possibility of syphilis, although I do not question that these three cases presented by Dr. Musser were genuine: certainly the first one was.

Although he did not observe in any of these cases enlargement of the red corpuscles, this has been frequently noted. The enlargement has been so marked that the term "giant" has been applied to them. Their diameter has been noted at fifteen micro-millimetres, while the average diameter is only eight and a half micro-millimetres. This increase is not limited to isolated corpuscles, but is general, and has been studied by many observers, particularly by a recent one, Laache, a German or Swede. This writer has called attention to the fact that the amount of hæmoglobin in the blood is not diminished in proportion to the diminution of the number of red corpuscles, so that the average value of hæmoglobin in each corpuscle is greater than normal.

This is a peculiar fact, and is not noted in any other form of anæmia. This observer also noticed an increased amount of urea in the urine, and also the presence of peptones.

I suppose that the cases reported by Dr. Curtin are cases of idiopathic anæmia. They have all the symptoms, but at the same time there were no autopsies, and in none of them was the blood examined, and therefore they are to a certain extent imperfect. Shock may undoubtedly produce this disease, and perhaps does so indirectly by interfering with digestion. I should imagine that those cases presented in some respects the condition of slow starvation. The depression of appetite may have caused the anæmia, which, lasting so long, led to degenerative changes in the gastric tubules, which changes are common in idiopathic anæmia.

This is an exceedingly obscure affection, and it has even been stated that the only sure diagnosis of idiopathic anæmia is to be made by the autopsy showing that no organ of the body is affected. This, I think, is wrong. It seems to me that there must be some lesion of hæmatopoietic organs yet to be discovered.

I may here remark in regard to the increased size and altered shape of the corpuscles being pathognomonic, that I have observed the same thing in a case of anæmia splenica. The patient died, and the spleen was found to be greatly enlarged and almost diffluent. These cases of pseudo-leukæmia, anæmia lymphatica, myelogenic anæmia, and pernicious anæmia, are not now clearly distinguished one from the other. The only way to separate them is by such careful study as has been bestowed upon the cases reported this evening.

Dr. Edward T. Bruen: Last year I had under my care a case of anæmia, of which the following is a brief account: S. F., aged 40, was of rather dissolute habits, but there was no reason to suspect syphilis. The blood was counted February 1, 1884, and showed a reduction of the red corpuscles to 600,000 per cubic millimetre; the white were somewhat reduced, but not to a marked extent; most of the red corpuscles were larger than normal, some of them being as large as the white; some were very small; all were highly colored, and many were of irregular shape and tailed. She was put under treatment, and some two months later an examination showed the same general appearances, but the red corpuscles were increased to 1,305,000 per cubic mm.; the patient subsequently had a relapse, and died about the 1st of June. I made an autopsy, and found, as had been recognized before death, that the spleen was much enlarged and very soft and diffluent; the other organs of the body were nearly normal, showing only the fatty degenerative changes which would be expected in a patient suffering several months with a severe form of anæmia.

The corollary which I feel disposed to draw from this case is somewhat in the line of the remarks of Dr. Henry; I think that we should not decide positively that the diagnosis of so-called pernicious anæmia can be made by blood-counting alone, or by the exclusion of definite lesions of the spleen and lymphatic glands. In the case that I have reported, there were the appearances of essential pernicious anæmia, yet the spleen was decidedly affected, while the marrow of the bones was normal. I think that possibly we should consider all these forms of anæmia as associated with lesions of the lymphatic structures or those structures which have to do with hæmatosis, and are all strictly idiopathic. I am not aware that any distinct pathology has been assigned to leucocythæmia, a disease which apparently presents the greatest possible contrast to pernicious anæmia. The positive nature of pernicious anæmia should be considered an open question. If I heard Dr. Musser correctly, he did not find those changes in the size and shape of the red corpuscles which occurred in the case I described.

The examinations of the blood, the results of which I have given, were made by Dr. William E. Hughes, to whom I am indebted for the report, although I examined the blood with him on several occasions.

Dr. Musser: As remarked by Dr. Henry, I purposely called the disease idiopathic anæmia, because cases are often cured, especially since the introduction of arsenic in its treatment; therefore, these cases are not pernicious, neither are they progressive, even fatal cases being characterized by remissions.

There is nothing so difficult as the distinction of idiopathic anæmia during life, for all the symptoms which it presents may be seen in other forms of anæmia. Immerman thought that the fever was pathognomonic, and called it essential febrile anæmia, but fever is found in other forms of anæmia, and many cases of pernicious anæmia without fever have been reported.

Attention was called to the occurrence of retinal hemorrhages by Biermer, but they occur in many forms of anæmia. There is probably only one symptom which is more frequently present in this than in other forms of anæmia, and that is the want of emaciation. This observation was first made by Addison, and has frequently been repeated by others.

In regard to the examination of the blood, various changes are found. By some, the presence of microcytes has been considered pathognomonic, but these are present to a moderate extent in health, and also in other diseases. In the same way, enlarged red blood-cells have been found in other conditions as well as in idiopathic anæmia. The evidence obtained from examination of the blood is not sufficient to warrant us in pronouncing any case an instance of idiopathic

anæmia. There must be an absence of any lesion to account for the profound degree of anæmia.

The remarks made by Dr. Curtin as regards the influence of the nervous system in the causation of this affection were warmly supported at one time by Lepine, who held that the nervous system was functionally at fault. Other observers have taken up the subject, and many facts have been brought to light to establish this point.

There is no doubt that there is an essential destruction of the red blood-corpuscles. In the absence of evidence of disease of the blood-making organs, Lauder Brunton has suggested, in an article in the *Practitioner*, that possibly the condition is due to a ferment circulating in the blood. This seems at least plausible, when we remember the effects of ferments on the red corpuscles. In examining the literature of acute yellow atrophy of the liver, I was struck with the fact that the changes in the blood were similar in most respects to those seen in anæmia. We shall have to fall back on chemistry to throw light upon this subject, especially as there are some cases in which there is no disease of the blood-making organs.

The value of arsenic cannot be too strongly impressed on the profession. Pye-Smith has written a most elaborate article, which will be found in Guy's Hospital Reports for 1883, in which he analyzes one hundred and twenty-three cases. Of these, twenty were cured. Puerperal and myelogenic anæmia, pseudo-leukæmia, and other forms of anæmia were excluded. Most of the cases that recovered were treated with arsenic, but transfusion was employed in four or five cases.

Dr. Roland G. Curtin: In answer to the suggestion of Dr. Henry that the cases which I have reported might have been instances of slow starvation, I would say that the anæmic symptoms preceded the dyspeptic troubles, and, further, that the patients were fully as rotund afterwards as before the anæmia set in. These facts would, I think, go to show that death was not attributable to starvation.

MISCELLANY.

THE ILLINOIS STATE BOARD OF HEALTH AND PRELIMINARY MEDICAL EDUCATION.—At the annual meeting of the Illinois State Board of Health, held April 16, the subject of medical education was taken up. It was stated by the Secretary that although seventy-eight medical colleges out of the one hundred and sixteen in the United States claim to have exacted, at their last session, a preliminary-education requirement as a condition of matriculation, the evidence afforded by the applications thus far received goes to show that in too many cases the standard of such education must be very low. From the graduates of one college, which announces that a preliminary examination will be held in accordance with the rules of the State Boards, five out of the seven applications received gave such intrinsic proof of defective preliminary education that they were presented to the Board. The Board subsequently adopted the following resolution:

"*Resolved*, That, in order to secure the recognition of its diplomas as in good standing for the purposes of the Medical-Practice Act in this State, it is necessary that each college shall distinctly state in its annual announcement that the conditions of admission to its classes are: 1. Credible certificates of good moral character. 2. Diploma of graduation for a good literary and scientific college or high school, or a first-grade teacher's certificate. Or, lacking this, a thorough examination in the branches of a good English education, including mathematics, English composition, and elementary physics or natural philosophy."

THE USE OF COCA WINE BY INVALID TRAVELLERS.—Dr. W. Thornton Parker, in a contribution to the *Archives of Medicine*, October, 1884, speaks highly of coca as a nerve-tonic for invalids, especially desirable for the invalid after reaching either Colorado or New Mexico. Coffee and tea are too stimulating, and exert an injurious influence on the nervous system in the high altitudes. Coca wine is desirable as a sedative to the nervous system, and is at the same time a delicious, invigorating tonic. He uses the wine made by T. Metcalfe & Co., Boston, which he considers "the best single preparation for travellers" that he knows of.

UNIVERSITY OF PENNSYLVANIA.—The one hundred and eleventh annual commencement of the Medical Department was held on Friday, May 1, when the degree of Doctor of Medicine was conferred upon a class of one hundred and eight graduates, and that of Doctor of Dental Surgery was given to forty-nine. The valedictory address was delivered by Prof. D. Hayes Agnew.

THE annual meeting of the Association of American Medical Editors was held in the hall of the Tulane University on April 27, the evening before the meeting of the American Medical Association. Dr. Henry O. Marcy, of Boston, Massachusetts, President of the Association, delivered an address on the "Legislative Establishment of Medical Examining Boards in America."

JEFFERSON MEDICAL COLLEGE.—It is announced that Prof. W. H. Pancoast has tendered his resignation from the Chair of Anatomy, but as yet no action has been taken upon it by the Board of Trustees. The Faculty has discontinued the Post-Graduate Course.

THE *Atlanta Medical and Surgical Journal*, which appears this year in greatly improved dress, announces in the May issue that it is the official organ of the Medical Association of Georgia, which has discontinued publishing its proceedings in book-form.

THE PENNSYLVANIA STATE MEDICAL SOCIETY will meet at Scranton on May 27, and remain three days in session.

PENNSYLVANIA DENTAL COLLEGE.—Dr. A. P. Brubaker has been elected to the Chair of Physiology in the Pennsylvania Dental College.

NOTES AND QUERIES.

RÖTHELN.

WASHINGTON, D.C., April 25, 1885.

TO THE EDITOR OF THE PHILA. MEDICAL TIMES:

There is quite an epidemic, or at least a wide-spread prevalence, at this time in Washington of rötheln, or "German measles." It is so general that almost all the schools, both public and private, have had numerous absentees on account of it. Parents, as a general thing, regard it as a trifling disorder, and allow their children full liberty, and in many cases permit them to go out with the eruption on them, while others seem rather to invite it, thinking it very fashionable to have it.

From what I learn, it is popular to call it roseola, which leaves the impression on the mind of the public that it is a very mild affection, necessitating no safeguards or precautions, requiring no treatment, and making it hardly necessary for the patient to keep his bed or even the house. From this cause I think the disease has been more widely spread.

I have seen some severe cases, attended by high fever, highly suffused and injected eyes, with photophobia and severe sore throat; and I ascertained at the Health-Office—the office of Vital Statistics—that three deaths have been reported from this cause.

The symptoms presented in most of the cases in this epidemic are usually those resembling measles, though the catarrhal symptoms are not so prominent in most cases. In the incubation-stage the patient generally complains of weariness and headache,—the latter symptom is almost universal, and is peculiar to it,—and in school-children, inability to study. In the prodromal stage there is in the beginning sometimes chilliness, often amounting to slight rigor. The stadium eruptionis begins about the third day. At this period it is sometimes scarcely to be distinguished from genuine measles, while at others it has the character of a more diffused rash, with the exception of irregular elevations of the dermic tissues, and an occasional elevated red spot, with scarcely a line of the skin of the natural color between. The stadium efflorescentiæ lasts about two days.

There is always an exacerbation of fever at the time of and increasing up to the height of the eruption, and declining with it. It occurs occasionally that the fever can only be ascertained by the thermometer-readings, the pulse being scarcely above normal. In most cases I have seen, the eyes are intensely red and injected, with inability to bear the least light, the face puffed and swollen, the throat very red, and the tonsils so enlarged as to interfere with deglutition. In one or two cases in females there were violent cramps in the lower part of the abdomen, like uterine colic.

The disease attacks all ages from three years to twenty and over. I have had several in adult patients, but the majority of the cases occur in children between the ages of three and fourteen years. I have seen but one case in an infant.

It generally lasts in favorable cases from five to seven days, and ends in desquamation more or less distinct. It is decidedly contagious in the febrile, and more especially in the desquamating, stage. The treatment is mostly expectant, but frequently decided treatment has to be instituted.

Rötheln is supposed to be a hybrid of scarlet fever and measles,—scarlet fever *plus* cough, hoarseness, and lachrymation (symptoms of measles), due to the presence of the eruption on the mucous membranes (Hooper).

Niemeyer speaks of rubeola scarlatinosa, and under the heading "Rose-rash" (roseola febrilis), says, "Canstatt aptly defines rose-rash as an eruption with red spots, concerning which, from its general symptoms and the affections of the mucous membranes, we are in doubt whether it should be classed with scarlet fever, measles, urticaria, or erythema, as it resembles one or other of these diseases in some points, while it differs in others. Epidemic roseola arising from infection . . . from unknown causes consists in modifications of scarlet fever and measles." The differential diagnosis between rötheln and roseola seems to be plain.

Scarlet fever and measles have been lingering to a greater or less extent in Washington during the later winter and spring months. There has been quite a number of malignant cases of the former, though the mortality has not been large. According to the official monthly report of the health-officer of this city, there were in November, 1884, eight deaths from scarlet fever, or 48 in 1000 of population per annum. In December there were 16, or 96 in 1000 of population per annum. For January, 1885, 13 deaths, or 78 in 1000 per annum, and in February 13, or 78 in 1000 per annum. During the period mentioned there were no deaths reported from measles.

Many of the cases of rötheln that came under my observation had had either scarlet fever or measles, and some had had both. There was a case in my own family where the patient had had both scarlet fever and measles in a typical form, and yet she had rötheln quite severely. In this case it was very much like measles, and if I had not known she had gone through with that disease I should have unhesitatingly pronounced it measles, especially if she had had the faucial and laryngeal irritation and cough usually observed in measles. She had measles *minus* cough, though she had quite a sore throat.

Is rötheln, then, a hybrid of scarlet fever and measles, or is it a distinct disease? May it occur at any period, or does it usually follow periods of epidemic or endemic scarlet fever and measles, or is it in any way associated with or related to them? These are questions that have not been decided, and yet they are worthy of investigations which will tend towards a solution of the problem.

S. J. RADCLIFFE, M.D.

1211 F STREET, NORTHWEST.

OFFICIAL LIST

OF CHANGES IN THE STATIONS AND DUTIES OF OFFICERS SERVING IN THE MEDICAL DEPARTMENT U.S. ARMY FROM APRIL 26, 1885, TO MAY 9, 1885.

MAJOR JOSEPH H. BILL, SURGEON.—Ordered for duty as member of Army Medical Examining Board, New York City.

CAPTAIN WILLIAM G. SPENCER, ASSISTANT-SURGEON.—From Department of the East to Department of Dakota.

CAPTAIN LOUIS BRECHEMIN, ASSISTANT-SURGEON.—From Department of the East to Department of the Platte.

CAPTAIN WILLIAM B. DAVIS, ASSISTANT-SURGEON.—From Department of Dakota to Department of the East. S. O. 100, A. G. O., May 2, 1885.

MAJOR CHARLES C. BYRNE, SURGEON.—Assigned to duty as attending surgeon at the Soldiers' Home, District of Columbia, to take effect May 15, 1885.

CAPTAIN CALVIN DE WITT, ASSISTANT-SURGEON.—Upon being relieved by Surgeon Byrne, ordered to report to the Surgeon-General of the Army. S. O. 94, A. G. O., April 25, 1885.

MAJOR GEORGE M. STERNBERG, SURGEON.—Detailed to attend as a delegate, on the part of the Government of the United States, the Sanitary Conference to be held at Rome, Italy, on May 15, 1885. S. O. 103, A. G. O., May 6, 1885.

CAPTAIN STEVENS G. COWDREY, ASSISTANT-SURGEON.—Assigned to duty as post-surgeon, Fort Bliss, Texas. S. O. 65, Department of Missouri, May 2, 1885.

CAPTAIN GEORGE H. TORNEY, ASSISTANT-SURGEON.—Assigned to duty at Fort Monroe, Va. S. O. 87, Department of the East, April 25, 1885.

FIRST-LIEUTENANT WILLIAM H. ARTHUR, ASSISTANT-SURGEON.—Assigned to duty at Fort Niagara, New York. S. O. 89, Department of the East, April 28, 1885.

FIRST-LIEUTENANT M. C. WYETH, ASSISTANT-SURGEON.—Ordered for temporary duty at Fort Wadsworth, New York Harbor. S. O. 95, Department of the East, May 6, 1885.